

Do we need to handle every temporal violation in scientific workflow systems?

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[ProQuest 文档链接](#)

摘要 (English): Scientific processes are usually time constrained with overall deadlines and local milestones. In scientific workflow systems, due to the dynamic nature of the underlying computing infrastructures such as grid and cloud, execution delays often take place and result in a large number of temporal violations. Temporal violation handling is to execute violation handling strategies which can compensate for the occurring time deficit but would impose some additional cost. Generally speaking, the two fundamental requirements for delivering satisfactory temporal QoS in scientific workflow systems are temporal conformance and cost effectiveness. Every task for workflow temporal management incurs some cost. Take a single temporal violation handling as an example, its cost can be primarily referred to monetary costs and time overheads of violation handling strategies which are normally nontrivial in scientific workflow systems.

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标识符 (关键字): Additional costs, Computing infrastructures, Monetary costs, Point selection, Scientific workflows, Temporal constraints, Temporal management, Temporal verification, Violation handling point selection

标题: Do we need to handle every temporal violation in scientific workflow systems?

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第一个可用: 2014-03-05

语言: 英文

First-principles study of the influence of lattice misfit on the behavior and the ductility effect of Hafnium in Ni-Ni₃Al system

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出版物信息: Acta Metallurgica Sinica (English Letters) 27.1 (Jan 1, 2014): 87-94.

[ProQuest 文档链接](#)

摘要 (English): Two Ni/Ni₃Al-interface-contained cluster models with/without lattice misfit are studied by first-principles method to clarify the debates about the segregation behaviors of Hafnium (Hf) and explore the influence of lattice misfit on the ductility effect of Hf. It is found that though Hf prefers to substitute Al rather than Ni in Ni₃Al phase within most of the investigated misfit range, its stronger preferring to Ni phase than Ni₃Al phase makes it impossible to go into Ni₃Al phase to occupy Al site in Ni-Ni₃Al alloys. Bond order analysis in Hf-free case shows that lattice misfit has different effects on the Griffith work of interfacial cleavage $2\gamma_{\text{int}}/E$ and the maximum theoretical shear stress τ_{max} of Ni and Ni₃Al, contributing to the existence of anomalous strength-temperature phenomena in Ni₃Al alloys. However, the addition of Hf will make the $2\gamma_{\text{int}}/E$ (or τ_{max}) of both Ni₃Al and Ni decrease (or increase) with lattice misfit, indicating that the addition of Hf may make the anomalous strength-temperature relationship in Ni₃Al region disappear locally. ©The Chinese Society for Metals and Springer-Verlag Berlin Heidelberg 2014.

DOI: <http://dx.doi.org/10.1007/s40195-014-0026-6>

ISSN: 10067191

主题: Nickel (主要); Aluminum; Ductility; Hafnium; Refuse digestion; Segregation (metallography)

出版商: Chinese Academy of Sciences

出版日期: Jan 1, 2014

出版物名称: Acta Metallurgica Sinica (English Letters)

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标识符 (关键字): Addition of HF, Al alloys, Bond-order analysis, Cluster models, Different effects, First principles method, First-principles study, Lattice misfits, Lattice misfit, Segregation

标题: First-principles study of the influence of lattice misfit on the behavior and the ductility effect of Hafnium in Ni-Ni₃Al system

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第一个可用: 2014-03-26

语言: 英文

Investigation of Y_{1-x}Ca_xBaCo₂O_{5+δ} cathodes for intermediate-temperature solid oxide fuel cells

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[ProQuest 文档链接](#)

摘要 (English): Double-perovskites $Y_{1-x}Ca_xBaCo_2O_{5+\delta}$ (YCBC, $x = 0.1-0.5$) were synthesized with a auto ignition process and were assessed as cathode materials for intermediate-temperature solid oxide fuel cells (IT-SOFCx) based on $Sm_{0.2}Ce_{0.8}O_{1.9}$ (SDC) electrolyte. X-ray diffraction confirms that there are some undesired peaks in YCBC0.1 and YCBC0.5, while the YCBC ($x = 0.2-0.4$) retains single phase with tetragonal structure. The YCBC materials exhibit chemical compatibility with SDC electrolyte up to a temperature of 1100°C. The conductivity of the samples decreases with increasing Ca content, and the maximum conductivity of YCBC is 506 Scm^{-1} for $x = 0.2$ sample. The increased doping of Ca deteriorates the area-specific resistances of YCBC ($x = 0.2-0.4$) cathodes. The Rp values of YCBC cathodes at $x = 0.2, 0.3$ and 0.4 on the SDC electrolyte are 0.26, 0.53 and $1.19 \Omega \text{ cm}^2$ at 650°C, respectively. This study suggests that YCBC0.2 can be potential candidates for utilization as IT-SOFCs cathode. ©(2014) Trans Tech Publications, Switzerland.

DOI: <http://dx.doi.org/10.4028/www.scientific.net/AMR.830.130>

ISSN: 10226680

主题: Cathodes (主要); Barium compounds; Bioinformatics; Calcium; Electrolytes; Solid oxide fuel cells (SOFC); X ray diffraction

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出版日期: Jan 1, 2014

出版物名称: Advanced Materials Research

出版物类型: Book Series

分类: 903: Information Science; 804: Chemical Products Generally; 803: Chemical Agents and Basic Industrial Chemicals; 931.3: Atomic and Molecular Physics; 704.1: Electric Components; 702: Electric Batteries and Fuel Cells; 549.2: Alkaline Earth Metals; 702.2: Fuel Cells

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更新: 2013-11-18

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Area-specific resistances, Auto-ignition process, Cath-ode materials, Chemical compatibility, Intermediate temperature solid oxide fuel cell, SDC electrolyte, Single phase, Tetragonal structure, Cathode, Intermediate-temperature solid oxide fuel cells

标题: Investigation of $Y_{1-x}Ca_xBaCo_2O_{5+\delta}$ cathodes for intermediate-temperature solid oxide fuel cells

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第一个可用: 2013-11-18

语言: 英文

Influence of attributes relationship to parameter estimation in DINA

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出版物信息: 于 Advanced Materials Research , 491-494. Trans Tech Publications Ltd, (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): DINA model appreciated by many researchers considers the relationships among attributes as mutually independent, conjunction and non-compensation relationship, but in real applications, there may not be able to meet such a relationship. Study the impacts on parameter estimates for the DINA model because of attribute relationships. Simulation results show that when there is a hierarchical relationship between attributes, there will be a great impact on the parameter estimation accuracy of DINA model; and the parameter estimation accuracy mainly affected by attribute hierarchy and the number of subjects. When existing hierarchy relationships among attributes, using DINA model as cognitive diagnosis model would affect the validity of diagnostic tests. ©(2014) Trans Tech Publications, Switzerland.

DOI: <http://dx.doi.org/10.4028/www.scientific.net/AMR.940.491>

ISSN: 10226680

主题: Parameter estimation (主要); Applications; Machinery; Materials science

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文档状态: New

文档类型: Conference Paper

更新: 2014-07-23

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Attribute, Cognitive diagnosis, Diagnostic tests, Hierarchical relationship, Mutually independents, Parameter estimate, Real applications, DINA model

标题: Influence of attributes relationship to parameter estimation in DINA

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第一个可用: 2014-07-23

语言: 英文

Spatial structure optimization on regional tourism system of Huangshan City, east China

作者: Wu, Li 1 ; Liu, Hong Ye 2 ; Liu, Li 1 ; Shen, Fei 1

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出版物信息: 于 Advanced Materials Research , 2464-2467. Trans Tech Publications Ltd, (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): Based on the previous theories of spatial structure optimization on regional tourism system in China, this research discusses the spatial structure optimization on regional tourism system of Huangshan City. It is proved by the empirical analysis that the spatial structure of tourism system in Huangshan City is in the stage of radiation mode at present, and with the period of reorganization and optimization on its spatial structure and tourism route system. The future expansion mode should be the ideal spatial structure of regional tourism system in Huangshan City. This process is ongoing. ©(2014) Trans Tech Publications, Switzerland.

DOI: <http://dx.doi.org/10.4028/www.scientific.net/AMR.962-965.2464>

ISSN: 10226680

主题: Shape optimization (主要); Structural optimization

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出版物类型: Book Series

分类: 921.5: Optimization Techniques

分页: 2464-2467

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文档状态: New

文档类型: Conference Paper

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来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): East China, Empirical analysis, Expansion modes, Huangshan city, Radiation mode, Regional tourism system, Spatial structure, Spatial structure optimization

标题: Spatial structure optimization on regional tourism system of Huangshan City, east China

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第一个可用: 2014-07-23

语言: 英文

Regulation of nitrogen forms on growth of eggplant under partial root-zone irrigation

作者: Zhang, Qiang 1 ; Wu, Shen 1 ; Chen, Chu 1 ; Shu, Liang-Zuo 1 ; Zhou, Xiu-Jie 1 ; Zhu, Sheng-Nan 1

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出版物信息: Agricultural Water Management 142 (Jan 1, 2014): 56-65.

[ProQuest 文档链接](#)

摘要 (English): Water and nitrogen (N) supply in eggplant (*Solanum melongena* L.) cropping system is an essential factor for controlling the production level, especially in water-limited areas. Shortage of available water and escalating irrigation costs along with high prices of fertilizers dictate adoption of practices that improve water- and N-use efficiency. This study investigated the effects of different irrigation amounts and modes as well as N forms on yield, photosynthesis and irrigated water-use efficiency (IWUE) of a local eggplant cultivar (Jing

Yuan No. 1) under partial root-zone irrigation. Two irrigation treatments were sufficient irrigation (enough water to keep the soil moisture in the top 0-40. cm at 90% of field water capacity) and deficit irrigation (60% of the water irrigated in sufficient irrigation treatment was applied). Three irrigation modes were conventional irrigation, alternate partial root-zone irrigation (APRI) and fixed partial root-zone irrigation (FPRI). The N treatments were nitrate-N and ammonium-N forms. Under sufficient irrigation, N forms had little effect on yield, leaf N concentration, IWUE, chlorophyll content, leaf water potential and the distribution of root mass, whereas the total length of root was higher in the irrigated furrow than in the non-irrigated furrow. Under deficit irrigation, eggplant had significantly higher biomass when supplied with nitrate-N than with ammonium-N. In addition, IWUE increased under deficit irrigation, particularly with nitrate-N than ammonium-N. With deficit irrigation, APRI increased eggplant growth, and improved fertilizer and water use efficiency more than FPRI at a given form of N fertilizer. Hence, under deficit irrigation, nitrogen forms had a significant effect on the growth of eggplant under partial root-zone irrigation; APRI as a water-saving irrigation technology could play a vital role in saving water and getting high yields in agricultural production. ©2014 Elsevier B.V.

DOI: <http://dx.doi.org/10.1016/j.agwat.2014.04.015>

ISSN: 03783774

主题: Irrigation (主要); Efficiency; Fertilizers; Nitrates; Nitrogen; Soil moisture

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出版物类型: Journal

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标识符 (关键字): Agricultural productions, Alternate partial root-zone irrigation, Eggplant, Irrigation level, Irrigation treatments, Nitrogen form, Partial root-zone irrigations, Water-saving irrigation, Partial root-zone irrigation

标题: Regulation of nitrogen forms on growth of eggplant under partial root-zone irrigation

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第一个可用: 2014-06-08

语言: 英文

On convergence for sequences of pairwise negatively quadrant dependent random variables

作者: Wu, Yongfeng 1 ; Shen, Guangjun 2

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出版物信息: Applications of Mathematics 59.4 (Jan 1, 2014): 473-487.

[ProQuest 文档链接](#)

摘要 (English): In this paper, some new results on complete convergence and complete moment convergence for sequences of pairwise negatively quadrant dependent random variables are presented. These results improve the corresponding theorems of S.X.Gan, P.Y.Chen (2008) and H.Y. Liang, C. Su (1999). ©2014 Institute of Mathematics of the Academy of Sciences of the Czech Republic, Praha, Czech Republic.

DOI: <http://dx.doi.org/10.1007/s10492-014-0067-1>

ISSN: 08627940

主题: Random variables (主要); Mathematical techniques

出版商: Kluwer Academic Publishers

出版日期: Jan 1, 2014

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出版物类型: Journal

分类: 921: Applied Mathematics; 922.1: Probability Theory

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摘要语言: English

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标识符 (关键字): Complete convergence, Complete moment convergences, New results, Pair-wise nqd random variables, complete moment convergence, pairwise NQD random variables

标题: On convergence for sequences of pairwise negatively quadrant dependent random variables

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第一个可用: 2014-08-04

语言: 英文

Enzymatic characterization of a type II isocitrate dehydrogenase from pathogenic *Leptospira interrogans* serovar Lai strain 56601

作者: Zhu, Guoping 1 ; Zhao, Xiaoyu 2 ; Wang, Peng 2 ; Zhu, Guiyue 2 ; Wang, Baojuan 2

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出版物信息: Applied Biochemistry and Biotechnology 172.1 (Jan 1, 2014): 487-496.

[ProQuest 文档链接](#)

摘要 (English): *Leptospira interrogans*, a Gram-negative pathogen, could cause infections in a wide variety of mammalian hosts, but due to their fastidious cultivation requirements and the lack of genetic systems, the pathogenic factor is still not clear. Isocitrate dehydrogenase (IDH) is a key enzyme in the tricarboxylation (TCA) cycle, which could have an important impact on the growth and pathogenesis of the bacteria. In the present study, we first report the cloning, heterologous expression, and detailed characterization of the IDH gene from *L. interrogans* serovar Lai strain 56601 (LiIDH). The molecular weight of LiIDH was determined to be 87 kDa by filtration chromatography, suggesting LiIDH is a typical homodimer. The optimum activity of LiIDH was found at 60 C, and its optimum pH was 7.0 (Mn^{2+}) and 8.0 (Mg^{2+}). Heat inactivation studies showed that heat treatment for 20 min at 50 C caused a 50 % loss of enzyme activity. LiIDH was completely divalent cation dependent as other typical dimeric IDHs and Mg^{2+} was its best activator. The recombinant LiIDH specificities (k_{cat}/K_m values for $NADP^+$ and NAD^+) in the presence of Mg^{2+} and Mn^{2+} were 6,269-fold and 1,000-fold greater for $NADP^+$ than NAD^+ , respectively. This current work is expected to shed light on the functions of metabolic enzymes in *L. interrogans* and provide useful information for LiIDH to be considered as a possible candidate for serological diagnostics and detection of *L. interrogans* infection. ©2013 Springer Science+Business Media New York.

DOI: <http://dx.doi.org/10.1007/s12010-013-0521-7>

ISSN: 02732289

主题: Manganese (主要); Enzyme kinetics; Enzymes; Gene expression; Mammals

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出版物类型: Journal

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更新: 2014-03-05

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Coenzyme specificity, Diagnostic candidate, Gram-negative pathogens, Heat inactivation, Heterologous expression, Isocitrate dehydrogenase, Leptospira interrogans, Pathogenic factors, Kinetics

标题: Enzymatic characterization of a type II isocitrate dehydrogenase from pathogenic *Leptospira interrogans* serovar Lai strain 56601

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第一个可用: 2014-03-05

语言: 英文

Heterojunction of facet coupled g-C₃N₄/surface-fluorinated TiO₂ nanosheets for organic pollutants degradation under visible LED light irradiation

作者: Dai, Kai 1 ; Lu, Luhua 2 ; Liang, Changhao 3 ; Liu, Qi 4 ; Zhu, Guangping 1

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出版物信息: Applied Catalysis B: Environmental 156-157 (Jan 1, 2014): 331-340.

[ProQuest 文档链接](#)

摘要 (English): Novel construction of a heterojunction structure by facet coupling of surface-fluorinated TiO₂ (F-TiO₂) nanosheet onto g-C₃N₄ nanosheet as a visible light photocatalyst was achieved through a simple hydrothermal method. Facet coupled structure between F-TiO₂-{001} nanosheet and g-C₃N₄-{002} nanosheet was evidently investigated by scanning electron microscopy (SEM), transmission electron microscopy (TEM), X-ray diffraction (XRD), X-ray photoelectron spectra (XPS), Fourier transform infrared (FT-IR) spectroscopy and UV-vis diffuse reflectance spectroscopy (DRS). The g-C₃N₄/F-TiO₂ facet coupled hybrid with remarkably increased interfacial area presented a significantly enhanced photocatalytic performance in degrading methylene blue (MB) under 410nm LED light irradiation. The obviously reduced electron-hole recombination rate of hybrid was demonstrated from photoluminescence (PL) spectroscopy measurements and the photoelectrochemical evaluation. An optimal g-C₃N₄ content has been determined to be 30wt%, corresponding to apparent pseudo-first-order rate constant k_{app} of 0.0374min⁻¹. It is 4.5 times and 13.9 times more than that of pure F-TiO₂ nanosheets and commercial P25 photocatalyst, respectively. ©2014 Elsevier B.V.

DOI: <http://dx.doi.org/10.1016/j.apcatb.2014.03.039>

ISSN: 09263373

主题: Nanosheets (主要); Aromatic compounds; Fourier transform infrared spectroscopy; Heterojunctions; Irradiation; Light; Light emitting diodes; Photocatalysts; Photoluminescence spectroscopy; Rate constants; Scanning electron microscopy; Titanium dioxide; Transmission electron microscopy; X ray diffraction; X ray photoelectron spectroscopy

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标识符 (关键字): C3 N4, Electron hole recombination rate, Facet, Fourier transform infra red (FTIR) spectroscopy, Hybrid, Photocatalytic activities, Pseudo-first-order rate constant, UV-Vis diffuse reflectance spectroscopy, F-TiO₂ nanosheets, Photocatalytic activity

标题: Heterojunction of facet coupled g-C₃N₄/surface-fluorinated TiO₂ nanosheets for organic pollutants degradation under visible LED light irradiation

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第一个可用: 2014-04-21

语言: 英文

Coupled systems for selective oxidation of aromatic alcohols to aldehydes and reduction of nitrobenzene into aniline using CdS/g-C₃N₄ photocatalyst under visible light irradiation

作者: Dai, Xia 1 ; Xie, Mengli 2 ; Meng, Sugang 2 ; Fu, Xianliang 2 ; Chen, Shifu 1

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出版物信息: Applied Catalysis B: Environmental 158-159 (Jan 1, 2014): 382-390.

[ProQuest 文档链接](#)

摘要 (English): A coupled system of selective oxidation of aromatic alcohols to aromatic aldehydes and reduction of nitrobenzene into aniline was realized using CdS/g-C₃N₄ composite as a photocatalyst under visible light illumination. The CdS/g-C₃N₄ composite photocatalyst was prepared by hydrothermal method. The photocatalyst was characterized by x-ray powder diffraction (XRD), UV-vis diffuse reflection spectroscopy (DRS), scanning electron microscopy (SEM), transmission electron microscopy (TEM), and Brunauer-Emmett-Teller (BET) specific surface area. Compared with single g-C₃N₄ and CdS, the CdS/g-C₃N₄ photocatalyst exhibits enhanced photocatalytic activity and excellent photostability under visible light illumination. It demonstrates that the selective oxidation of aromatic alcohol into aromatic aldehyde is achieved by direct holes oxidation, and the reduction of nitrobenzene into aniline is reached by direct electrons reduction. The optimum percentage of CdS is 10wt.%. Under illumination for 4h, the conversion of benzyl alcohol and the yield of benzaldehyde are about 48.0% and 44.6%, and the conversion of nitrobenzene and the yield of aniline are about 49.2% and 26.0%, respectively. The synergic effect of g-C₃N₄ and CdS, which can effectively separate and transfer photoexcited carriers, was proposed to be responsible for the enhancement of the photocatalytic activity. This study has a guiding significance for the design of a coupled system which realizes selective oxidation and reduction of organics. ©2014 Elsevier B.V.

DOI: <http://dx.doi.org/10.1016/j.apcatb.2014.04.035>

ISSN: 09263373

主题: Photocatalysts (主要); Aldehydes; Aniline; Aromatic compounds; Aromatization; Cadmium sulfide; Complexation; Nitrobenzene; Oxidation; Photocatalysis; Reduction; Scanning electron microscopy; Transmission electron microscopy; X ray powder diffraction

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Applied Catalysis B: Environmental

出版物类型: Journal

分类: 741.1: Light and Optics; 741.3: Optical Devices and Systems; 802.2: Chemical Reactions; 803: Chemical Agents and Basic Industrial Chemicals; 804: Chemical Products Generally; 804.1: Organic Compounds; 931.3: Atomic and Molecular Physics

分页: 382-390

创建日期: 2014-05-28

卷: 158-159

摘要语言: English

收录号: 20142217762534

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-01

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Brunauer emmett tellers, CdS, Composite photocatalysts, Coupled systems, Diffuse reflection spectroscopy, Photocatalytic activities, Selective oxidation, Visible-light irradiation, Coupled system

标题: Coupled systems for selective oxidation of aromatic alcohols to aldehydes and reduction of nitrobenzene into aniline using CdS/g-C₃N₄ photocatalyst under visible light irradiation

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第一个可用: 2014-06-01

语言: 英文

Preparation and investigation of Cu doped (Pr 0.5 Nd 0.5) 0.7 Ca 0.3 CrO 3-δ ceramic interconnect materials

作者: Gu, Qing Wen 1 ; Chen, Yong Hong 1 ; Tian, Dong 1 ; Lu, Xiao Yong 1 ; Ding, Yan Zhi 1 ; Lin, Bin 1

1 Anhui Key Laboratory of low temperature Co-fired Materials, Department of Chemistry and Engineering, Huainan Normal University, Huainan, 232001, Anhui, China guqingwen1987@163.com ; chenyh@hnnu.edu.cn

出版物信息: 于 Applied Mechanics and Materials , 2950-2958. Trans Tech Publications Ltd, (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): $(\text{Pr}_{0.5}\text{Nd}_{0.5})_{0.7}\text{Ca}_{0.3}\text{Cr}_{1-x}\text{Cu}_x\text{O}_{3-\delta}$ (PNCCCx x=0, 0.5, 0.1, 0.15, 0.2) interconnect material and electro-lyte powders of $\text{Sm}_{0.2}\text{Ce}_{0.8}\text{O}_{1.9}$ (SDC) were synthesized by citric acid nitrates self-propagating combustion method. The phase and microstructure of the sintering samples were investigated by X-ray diffraction and scanning electron microscope, respectively. The electrical conductivity of the samples were measured by four-probe technique. The results indicated that there is no new-phase were detected after co-firing between Cu-doping PNCC and SDC at 1350°C for 5 h. In air or H_2 atmosphere, the conductivity of the sintering ceramics increasing with temperature, as well as the Cu-doped contents. At 800°C, the conductivity for PNCCC0.05 reached 37.54S/cm in air, and the maximum of PNCCC/SDC reached 44.52 S/cm in air 30.68 S/cm in H_2 , respectively. The average thermal expansion coefficient of the series ceramics is between $10.4 \times 10^{-6} \text{ K}^{-1}$ to $10.8 \times 10^{-6} \text{ K}^{-1}$ at the RT-1000°C, which is close to that of the SDC electrolyte. Our results indicate that the PNCCC compounds is a very promising interconnect material for intermediate solid oxide fuel cells. ©(2014) Trans Tech Publications, Switzerland.

DOI: <http://dx.doi.org/10.4028/www.scientific.net/AMM.448-453.2950>

ISSN: 16609336

主题: Ceramic materials (主要); Calcium; Doping (additives); Environmental technology; Sintering; Solid oxide fuel cells (SOFC); X ray diffraction; X ray powder diffraction

出版商: Trans Tech Publications Ltd

出版日期: Jan 1, 2014

出版物名称: Applied Mechanics and Materials

出版物类型: Book Series

分类: 931.3: Atomic and Molecular Physics; 812.2: Refractories; 812.1: Ceramics; 801: Chemistry; 702.2: Fuel Cells; 549.2: Alkaline Earth Metals; 454: Environmental Engineering

分页: 2950-2958

创建日期: 2013-11-20

卷: 448-453

摘要语言: English

收录号: 20134717004031

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Conference Paper

更新: 2013-11-25

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Electrical conductivity, Interconnect materials, Intermediate solid oxide fuel cells, Phase and microstructures, SDC electrolyte, Self-propagating combustion, TEC, Thermal expansion coefficients, Ceramic interconnect materials, Cu dopant, Solid oxide fuel cell

标题: Preparation and investigation of Cu doped $(Pr_{0.5}Nd_{0.5/0.7})Ca_{0.3}CrO_{3-5}$ ceramic interconnect materials

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第一个可用: 2013-11-25

语言: 英文

Study on chaotic operation and control system of ultrasonic motor

作者: Quan, Xun Zhong 1 ; Liao, Xiao Wei 2 ; Wu, Yan 2 ; Wang, Li 2

1 Nanjing University of Aeronautics and Astronautics, Yudao Street, Baixia Dist. of Nanjing, Jiangsu Province, No. 29 210016, China, Huainan Normal University, Huainan West Road, Anhui Province 232009, China robertqxz@126.com 2 Huainan Normal University, Huainan West Road, Anhui Province 232009, China

出版物信息: 于 Applied Mechanics and Materials , 782-787. Trans Tech Publications Ltd, (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): According to the running speed of ultrasonic motor instability, design a motor testing system, the closed-loop controller embedded improved neural network algorithm, to suppress chaos. In open-loop state, input constant parameters to the motor, the motor rotating speed detection, the test data is chaotic analysis, found the speed has chaotic characteristics; in the closed-loop state, the feedback signal through the controller for processing, effectively inhibited the ultrasonic motor speed jitter phenomenon, so as to improve the smoothness of motion motor. Experimental results show that, the neural network controller design not only significantly inhibited motor chaotic jitter phenomenon, but also has good anti-interference ability. ©(2014) Trans Tech Publications, Switzerland.

DOI: <http://dx.doi.org/10.4028/www.scientific.net/AMM.462-463.782>

ISSN: 16609336

主题: Controllers (主要); Feedback; Information technology; Jitter; Motors; Neural networks; Piezoelectric devices; Piezoelectric motors; Ultrasonic equipment; Ultrasonic machine tools

出版商: Trans Tech Publications Ltd

出版日期: Jan 1, 2014

出版物名称: Applied Mechanics and Materials

出版物类型: Book Series

分类: 903: Information Science; 753.2: Ultrasonic Devices; 732.1: Control Equipment; 731.1: Control Systems; 723.4: Artificial Intelligence; 718: Telephone and Other Line Communications; 717: Electro-Optical Communication; 716: Electronic Equipment, Radar, Radio and Television; 714: Electronic Components and Tubes; 705.3: Electric Motors; 704: Electric Components and Equipment

分页: 782-787

创建日期: 2014-01-01

卷: 462-463

摘要语言: English

收录号: 20140117159715

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Conference Paper

更新: 2014-01-06

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Anti-interference, Chaotic characteristics, Chaotic operations, Closed loop controllers, Constant parameters, Neural network controllers, Smoothness of motions, Ultrasonic motors, Controller for the chaotic, Neural network, Ultrasonic motor

标题: Study on chaotic operation and control system of ultrasonic motor

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第一个可用: 2014-01-06

语言: 英文

Postsynthetic modification of IRMOF-3 with a copper iminopyridine complex as heterogeneous catalyst for the synthesis of 2-aminobenzothiazoles

作者: Liu, Jie 1 ; Zhang, Xiaobin 2 ; Yang, Jin 2 ; Wang, Lei 3

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出版物信息: Applied Organometallic Chemistry 28.3 (Jan 1, 2014): 198-203.

[ProQuest 文档链接](#)

摘要 (English): A copper iminopyridine complex has been immobilized on to a metal-organic framework (MOF) through postsynthetic modification of IRMOF-3. The modified MOFs were fully demonstrated by using a variety of methods, and the structural integrity of the modified MOFs has been confirmed by powder X-ray diffraction (XRD). Furthermore, it was shown that the modified IRMOF-3 can act as an efficient solid catalyst for the synthesis of 2-aminobenzothiazoles via the reaction of 2-iodoanilines with isothiocyanates in a heterogeneous manner. Moreover, the catalyst could be facilely separated from the reaction mixture and reused for six consecutive cycles without significant degradation in catalytic activity. Copyright ©2014 John Wiley & Sons, Ltd.

DOI: <http://dx.doi.org/10.1002/aoc.3109>

ISSN: 02682605

主题: Catalysts (主要); Copper; Crystalline materials; X ray diffraction

出版商: John Wiley and Sons Ltd

出版日期: Jan 1, 2014

出版物名称: Applied Organometallic Chemistry

出版物类型: Journal

分类: 544.1: Copper; 803: Chemical Agents and Basic Industrial Chemicals; 804: Chemical Products Generally; 931.3: Atomic and Molecular Physics; 933.1: Crystalline Solids

分页: 198-203

创建日期: 2014-03-07

卷: 28

摘要语言: English

收录号: 20141017429633

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-12

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): 2-aminobenzothiazoles, Heterogeneous catalyst, Isothiocyanates, Metal organic framework, Postsynthetic modification, Powder X ray diffraction, Reaction mixture, Solid catalysts, copper iminopyridine complex, metal-organic framework

标题: Postsynthetic modification of IRMOF-3 with a copper iminopyridine complex as heterogeneous catalyst for the synthesis of 2-aminobenzothiazoles

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第一个可用: 2014-03-12

语言: 英文

Novel isoxazoline ligand with ferrocene backbone: Preparation and application in Heck reaction with water as solvent

作者: Yu, Shuyan 1 ; Zhang, Zhiqin 2 ; Yu, Zhiyu 2 ; Shang, Yongjia 2

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出版物信息: Applied Organometallic Chemistry 28.8 (Jan 1, 2014): 657-660.

[ProQuest 文档链接](#)

摘要 (English): Two novel isoxazoline N,N-bidentate ligands with ferrocene backbone have been synthesized and employed for the palladium-catalyzed Heck coupling reaction. Among them, 1,3-bis-(5-ferrocenyliisoxazoline-3-yl)benzene was found to be thermally stable and a highly effective ligand for Heck coupling reaction in neat water without N₂ protection, affording the desired coupling products in good to excellent yield with high diastereoselectivity. The developed catalytic system was also well workable for 1,2-disubstituted alkenes, which were less involved in the Heck reaction for its larger steric hindrance. Copyright ©2014 John Wiley & Sons, Ltd.

DOI: <http://dx.doi.org/10.1002/aoc.3176>

ISSN: 02682605

主题: Chemical reactions (主要); Ligands; Organometallics; Water

出版商: John Wiley and Sons Ltd

出版日期: Jan 1, 2014

出版物名称: Applied Organometallic Chemistry

出版物类型: Journal

分类: 444: Water Resources; 801.4: Physical Chemistry; 802.2: Chemical Reactions; 804.1: Organic Compounds

分页: 657-660

创建日期: 2014-07-29

卷: 28

摘要语言: English

收录号: 20143117999387

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-08-04

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Bis-oxazoline, Diastereo-selectivity, Ferrocenes, Heck coupling reaction, Heck reactions, Palladium-catalyzed, Steric hindrances, Thermally stable, bisoxazoline, ferrocene, Heck reaction

标题: Novel isoxazoline ligand with ferrocene backbone: Preparation and application in Heck reaction with water as solvent

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第一个可用: 2014-08-04

语言: 英文

Privacy-preserving range query in two-tiered wireless sensor networks

作者: Wang, Tao-Chun 1 ; Qin, Xiao-Lin 2 ; Liu, Liang 2 ; Dai, Hua 3

1 College of Computer Science and Technology, Nanjing University of Aeronautics and Astronautics, Nanjing 210016, China, College of Mathematics and Computer Science, Anhui Normal University, Anhui Wuhu, 241003, China wangtc@nuaa.edu.cn 2 College of Computer Science and Technology, Nanjing University of Aeronautics and Astronautics, Nanjing 210016, China 3 College of Computer, Nanjing University of Posts and Telecommunications, Nanjing 210016, China

出版物信息: Beijing Youdian Daxue Xuebao/Journal of Beijing University of Posts and Telecommunications 37.2 (Jan 1, 2014): 104-108.

[ProQuest 文档链接](#)

摘要 (English): In the two-tiered wireless sensor networks, storage nodes collect data from sensor nodes and answer the queries from the sink. However, for their importance, storage nodes are attractive targets of attack and even might be compromised by the adversary. A compromised storage node may disclose sensitive data to the adversary and return juggled or incomplete sensitive data to the sink. A safe verifiable range query scheme is presented. It offers data confidentiality and query result authenticity. More importantly, it allows sink to verify query result completeness with high probability using signature aggregation technology, which greatly reduces communication cost. And based on the above scheme, it is an improvably secure verifiable range query scheme with higher probability of verification that is proposed. The theoretical analysis and simulations illustrate the schemes have high verification probability and low communication cost.

DOI: <http://dx.doi.org/10.13190/j.jbupt.2014.02.022>

ISSN: 10075321

主题: Sensor nodes (主要); Communication; Cost benefit analysis; Digital storage; Probability; Query processing; Wireless sensor networks

出版商: Beijing University of Posts and Telecommunications

出版日期: Jan 1, 2014

出版物名称: Beijing Youdian Daxue Xuebao/Journal of Beijing University of Posts and Telecommunications

出版物类型: Journal

分类: 716: Electronic Equipment, Radar, Radio and Television; 722: Computer Hardware; 722.1: Data Storage, Equipment and Techniques; 723.3: Database Systems; 732: Control Devices; 911: Cost and Value Engineering; Industrial Economics; 922.1: Probability Theory

分页: 104-108

创建日期: 2014-06-25

卷: 37

摘要语言: English

收录号: 20142617866679

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-29

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Analysis and simulation, Communication cost, Data confidentiality, High probability, Privacy preserving, Privacy-preserve, Range query, Two-tiered wireless sensor networks, Signature aggregation

标题: Privacy-preserving range query in two-tiered wireless sensor networks

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第一个可用: 2014-06-29

语言: 英文

Treatment of metastatic breast cancer by combination of chemotherapy and photothermal ablation using doxorubicin-loaded DNA wrapped gold nanorods

作者: Wang, Dangge 1 ; Xu, Zhiai 2 ; Yu, Haijun 1 ; Chen, Xianzhi 1 ; Feng, Bing 1 ; Cui, Zhirui 1 ; Lin, Bin 2 ; Yin, Qi 1 ; Zhang, Zhiwen 1 ; Chen, Chunying 3 ; Wang, Jun 4 ; Zhang, Wen 2 ; Li, Yaping 1

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Sciences, University of Science and Technology of China, Hefei, Anhui 230027, China

出版物信息: Biomaterials 35.29 (Jan 1, 2014): 8374-8384.

[ProQuest 文档链接](#)

摘要 (English): Despite the exciting advances in cancer therapy over past decades, tumor metastasis remains the dominate reason for cancer-related mortality. In present work, DNA-wrapped gold nanorods with doxorubicin (DOX)-loading (GNR@DOX) were developed for treatment of metastatic breast cancer via a combination of chemotherapy and photothermal ablation. The GNR@DOX nanoparticles induced significant temperature elevation and DOX release upon irradiation with near infrared (NIR) light as shown in the test tube studies. It was found that GNR@DOX nanoparticles in combination with laser irradiation caused higher cytotoxicity than free DOX in 4T1 breast cancer cells. Animal experiment with an orthotropic 4T1 mammary tumor model demonstrated that GNR@DOX nanoplatform significantly reduced the growth of primary tumors and suppressed their lung metastasis. The Hematoxylin and Eosin (H&E) and immunohistochemistry (IHC) staining assays confirmed that the tumor growth inhibition and metastasis prevention of GNR@DOX nanoparticles were attributed to their abilities to induce cellular apoptosis/necrosis and ablate intratumoral blood vessels. All these results suggested a considerable potential of GNR@DOX nanoplatform for treatment of metastatic breast cancer. ©2014 Elsevier Ltd.

DOI: <http://dx.doi.org/10.1016/j.biomaterials.2014.05.094>

ISSN: 01429612

主题: Nanoribbons (主要); Ablation; Blood vessels; Chemotherapy; Diseases; Gold; Infrared devices; Nanoparticles; Nanorods; Pathology; Plasmons; Tumors

出版商: Elsevier Ltd

出版日期: Jan 1, 2014

出版物名称: Biomaterials

出版物类型: Journal

分类: 461.2: Biological Materials; 461.6: Medicine; 547.1: Precious Metals; 641.2: Heat Transfer; 712.1: Semiconducting Materials; 741.3: Optical Devices and Systems; 761: Nanotechnology

分页: 8374-8384

创建日期: 2014-07-16

卷: 35

摘要语言: English

收录号: 20142917948834

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-23

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Breast Cancer, Breast cancer cells, Doxorubicin, Gold nanorod, Immunohistochemistry, Near infrared light, Photothermal ablation, Temperature elevation, Gold nanorods, Metastatic breast cancer

标题: Treatment of metastatic breast cancer by combination of chemotherapy and photothermal ablation using doxorubicin-loaded DNA wrapped gold nanorods

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第一个可用: 2014-07-23

语言: 英文

Optical cochlear implant: Evaluation of insertion forces of optical fibres in a cochlear model and of traumata in human temporal bones

作者: Balster, Sven 1 ; Wenzel, Gentiana I. 2 ; Warnecke, Athanasia 1 ; Steffens, Melanie 1 ; Rettenmaier, Alexander 1 ; Zhang, Kaiyin 3 ; Lenarz, Thomas 1 ; Reuter, Guenter 1

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出版物信息: Biomedizinische Technik 59.1 (Jan 1, 2014): 19-28.

[ProQuest 文档链接](#)

摘要 (English): Optical stimulation for hearing restoration is developing as an alternative therapy to electrical stimulation. For a more frequency-specific activation of the auditory system, light-guiding fibres need to be inserted into the coiled cochlea. To enable insertion with minimal trauma, glass fibres embedded in silicone were used as models. Thus, glass fibres of varying core/cladding diameter with and without silicon coating (single as well as in bundles) were inserted into a human scala tympani (ST) model. Insertion cochlear model force measurements were performed, and the thinner glass fibres that showed low insertion forces in the model were inserted into cadaveric human temporal bones. Silicone-coated glass fibres with different core/cladding diameters and bundle sizes could be inserted up to a maximum depth of 20 mm. Fibres with a core/cladding diameter of 50/55 μm break during insertion deeper than 7-15 mm into the ST model, whereas thinner fibres (20/25 μm) could be inserted in the model without breakage and in human temporal bones without causing trauma to the inner ear structures. The insertion forces of silicone-coated glass fibres are comparable to those measured with conventional cochlear implant (CI) electrodes. As demonstrated in human temporal bones, a minimal traumatic implantation of an optical CI may be considered feasible. ©2014 Walter de Gruyter GmbH, Berlin/Boston.

DOI: <http://dx.doi.org/10.1515/bmt-2013-0038>

ISSN: 00135585

主题: Bone (主要); Audition; Cochlear implants; Force measurement; Glass fibers; Optical fibers; Silicones

出版商: Walter de Gruyter and Co.

出版日期: Jan 1, 2014

出版物名称: Biomedizinische Technik

出版物类型: Journal

分类: 461.2: Biological Materials; 461.4: Human Engineering; 462.4: Prosthetics; 741.1.2: Fiber Optics; 816: Plastics Processing and Machinery; 817: Plastics, Products and Applications; 943.2: Mechanical Variables Measurements

分页: 19-28

创建日期: 2014-03-20

卷: 59

摘要语言: English

收录号: 20141217486382

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-26

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Alternative therapy, Auditory prosthesis, Auditory systems, Electrical stimulations, Inner ear structures, Optical stimulation, Silicon coatings, Temporal bone, Force measurements, Human temporal bone insertion, Laser fibres

标题: Optical cochlear implant: Evaluation of insertion forces of optical fibres in a cochlear model and of traumata in human temporal bones

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第一个可用: 2014-03-26

语言: 英文

Enhanced gellan gum production by hydrogen peroxide (H₂O₂) induced oxidative stresses in *Sphingomonas paucimobilis*

作者: Zhu, Guilan 1 ; Sheng, Long 2 ; Tong, Qunyi 2

1 Department of Life Science, Hefei Normal University, Hefei, Anhui 230061, China, School of Food Science and Technology, Jiangnan University, Wuxi 214122, China zhu_guilan@yahoo.com.cn 2 School of Food Science and Technology, Jiangnan University, Wuxi 214122, China qytong@263.net

出版物信息: Bioprocess and Biosystems Engineering 37.4 (Jan 1, 2014): 743-748.

[ProQuest 文档链接](#)

摘要 (English): In this study, the effect of H₂O₂-induced oxidative stress on gellan gum production and cell growth were investigated. Gellan gum production was improved and cell growth was inhibited by H₂O₂. A multiple H₂O₂ stresses with different concentrations were developed to optimize gellan gum production. A maximal gellan gum yield (22.52 g/L), which was 35.58 % higher than the control, was observed with 2, 2, 3, 4 mmol/L H₂O₂ added at 6, 12, 18, 24 h, respectively. Moreover, UDP-glucose pyrophosphorylase activity and glucosyltransferase activity were increased with H₂O₂ stresses. This new strategy of multiple H₂O₂-induced oxidative stresses would be further applied to gellan gum production in future study. ©2013 Springer-Verlag.

DOI: <http://dx.doi.org/10.1007/s00449-013-1030-3>

ISSN: 16157591

主题: Oxidative stress (主要); Cell growth; Growth kinetics; Hydrogen peroxide; Peroxides

出版商: Springer Verlag

出版日期: Jan 1, 2014

出版物名称: Bioprocess and Biosystems Engineering

出版物类型: Journal

分类: 461: Bioengineering; 804.2: Inorganic Compounds

分页: 743-748

创建日期: 2014-04-18

卷: 37

摘要语言: English

收录号: 20141617593442

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-04-21

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Effect of H₂O₂, Gellan gum, Glucosyltransferases, Sphingomonas paucimobilis, UDP-glucose, Oxidative stresses

标题: Enhanced gellan gum production by hydrogen peroxide (H₂O₂) induced oxidative stresses in Sphingomonas paucimobilis

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第一个可用: 2014-04-21

语言: 英文

Improvement of kojic acid production in *Aspergillus oryzae* B008 mutant strain and its uses in fermentation of concentrated corn stalk hydrolysate

作者: Yan, Shoubao 1 ; Tang, Huijuan 2 ; Wang, Shunchang 2 ; Xu, Liangting 2 ; Liu, Hongyan 2 ; Guo, Yinhong 2 ; Yao, Jianming 3

1 School of Life Science, Huainan Normal University, Huainan 232001, Anhui, China, Key Laboratory of Ion Beam Bio-engineering of Institute of Plasma Physics, Chinese Academy of Sciences, Hefei 232001, Anhui, China yhj_ysb@sohu.com 2 School of Life Science, Huainan Normal University, Huainan 232001, Anhui, China 3 Key Laboratory of Ion Beam Bio-engineering of Institute of Plasma Physics, Chinese Academy of Sciences, Hefei 232001, Anhui, China

出版物信息: Bioprocess and Biosystems Engineering 37.6 (Jan 1, 2014): 1095-1103.

[ProQuest 文档链接](#)

摘要 (English): A strain designated M866, producing kojic acid with a high yield, was obtained by combining induced mutation using ion beam implantation and ethyl methane sulfonate treatment of a wild type strain of *Aspergillus oryzae* B008. The amount of kojic acid produced by the strain M866 in a shaking flask was 40.2 g/L from 100 g/L of glucose, which was 1.7 times higher than that produced by wild strain (23.58 g/L). When the mixture of glucose and xylose was used as carbon source, the resulting kojic acid production was raised with the increasing of glucose ratios in the mixture. With concentrations of glucose at 75 g/L and xylose at 25 g/L mixed in the medium, the production of kojic acid reached 90.8%, which was slightly lower than with glucose as the sole source of carbon. In addition, the kojic acid fermentation of the concentrated hydrolysate from corn stalk was also investigated in this study, the maximum concentration of kojic acid accumulated at the end of the fermentation was 33.1 g/L and this represents the yield based on reducing sugar consumed and the overall productivity of 0.36 g/g and 0.17 g/L/h, respectively. ©Springer-Verlag 2013.

DOI: <http://dx.doi.org/10.1007/s00449-013-1081-5>

ISSN: 16157591

主题: Glucose (主要); *Aspergillus*; Carbon; Fermentation; Methane; Mixtures

出版商: Springer Verlag

出版日期: Jan 1, 2014

出版物名称: Bioprocess and Biosystems Engineering

出版物类型: Journal

分类: 461.8: Biotechnology; 461.9: Biology; 522: Gas Fuels; 802.2: Chemical Reactions; 802.3: Chemical Operations; 804: Chemical Products Generally; 804.1: Organic Compounds

分页: 1095-1103

创建日期: 2014-08-14

卷: 37

摘要语言: English

收录号: 20143318062504

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-08-17

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Aspergillus Oryzae, Ethyl methane sulfonates, Induced mutations, Ion beam implantation, Kojic acid, Maximum concentrations, Mutation, Sole source of carbon, Kojic acid production

标题: Improvement of kojic acid production in Aspergillus oryzae B008 mutant strain and its uses in fermentation of concentrated corn stalk hydrolysate

版权: Copyright 2014 Elsevier B.V., All rights reserved.

第一个可用: 2014-08-17

语言: 英文

Research on multi-criterion optimization of computercommunication network reliability - Using genetic algorithms

作者: Quan, Xunzhong 1 ; Li, Huafeng 2

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出版物信息: BioTechnology: An Indian Journal 10.2 (Jan 1, 2014): 358-366.

[ProQuest 文档链接](#)

摘要 (English): This paper is a study of computer communication backbone network. Based on the principles and multi-criterion models of computer-communication network reliability, the paper set up a multi-criterion optimization model for the all-terminal network reliability, with all-terminal reliability used as the indicator, where genetic algorithm is employed and proved to be able to generate a satisfactory result within the shortest time, and managed to solve the problem Np-hard, which is meant to be of high reliability and low cost. ©2014 Trade Science Inc. - INDIA.

ISSN: 09747435

主题: Computer networks (主要); Algorithms; Electric network topology; Genetic algorithms; Reliability; Telecommunication networks

出版商: Trade Science Inc

出版日期: Jan 1, 2014

出版物名称: BioTechnology: An Indian Journal

出版物类型: Journal

分类: 421: Strength of Building Materials; Mechanical Properties; 703.1: Electric Networks; 716: Electronic Equipment, Radar, Radio and Television; 717: Electro-Optical Communication; 718: Telephone and Other Line Communications; 722: Computer Hardware; 723: Computer Software, Data Handling and Applications; 921: Applied Mathematics

分页: 358-366

创建日期: 2014-06-30

卷: 10

摘要语言: English

收录号: 20142617878059

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-06

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Back-bone network, Computer communication networks, Computer Communications, High reliability, Multi-Criterion, Multi-criterion optimization, Network reliability, Network topology, Computer-communication network, Genetic algorithm

标题: Research on multi-criterion optimization of computercommunication network reliability - Using genetic algorithms

版权: Copyright 2014 Elsevier B.V., All rights reserved.

第一个可用: 2014-07-06

语言: 英文

The life-table demographic response of freshwater rotifer *Brachionus calyciflorus* to multi-metal (Cu, Zn, Cd, Cr, and Mn) mixture interaction

作者: Xu, Xiao-Ping 1 ; Xi, Yi-Long 2 ; Huang, Lin 2 ; Xiang, Xian-Ling 2

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出版物信息: Bulletin of Environmental Contamination and Toxicology 93.2 (Jan 1, 2014): 165-170.

[ProQuest 文档链接](#)

摘要 (English): The effects of multi-metal mixtures on the life-table demography of rotifers are not well known. In this study, the freshwater rotifer *Brachionus calyciflorus* was exposed to mixture of Cu, Zn, Cd, Cr, and Mn, and the life-table demographic parameters including net reproductive rate, generation time, life expectancy at hatching, and intrinsic rate of population increase were calculated. The results showed that interactions between a given element concentration, except Mn, and the other four elements mixture concentration affected the intrinsic rate of population increase ($p < 0.01$). Interactions between Zn concentration, as well as Mn, and the other four elements mixture concentration affected the net reproductive rate and the life expectancy at hatching, respectively ($p < 0.05$). The variation of parameters with the rise of the other four elements mixture concentrations from 0 to high was mainly attributed to the difference of interaction among the five metals mixture with different ratio of concentrations. ©2014 Springer Science+Business Media New York.

DOI: <http://dx.doi.org/10.1007/s00128-014-1281-y>

ISSN: 00074861

主题: Copper (主要); Cadmium; Manganese; Mixtures; Ontology; Population dynamics; Population statistics; Toxicity; Water; Zinc

出版商: Springer New York LLC

出版日期: Jan 1, 2014

出版物名称: Bulletin of Environmental Contamination and Toxicology

出版物类型: Journal

分类: 444: Water Resources; 543.2: Manganese and Alloys; 544.1: Copper; 546.3: Zinc and Alloys; 549.3: Others, incl. Bismuth, Boron, Cadmium, Cobalt, Mercury, Niobium, Selenium, Silicon, Tellurium; 723: Computer Software, Data Handling and Applications; 802.3: Chemical Operations; 804: Chemical Products Generally; 903: Information Science; 922.2: Mathematical Statistics; 971: Social Sciences

分页: 165-170

创建日期: 2014-07-31

卷: 93

摘要语言: English

收录号: 20143118010356

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-08-04

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Demographic parameters, Element concentrations, Life history, Metal contamination, Mixture concentration, Reproductive rates, Rotifer, Variation of Parameters

标题: The life-table demographic response of freshwater rotifer *Brachionus calyciflorus* to multi-metal (Cu, Zn, Cd, Cr, and Mn) mixture interaction

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第一个可用: 2014-08-04

语言: 英文

A highly efficient and recyclable Fe₃O₄ magnetic nanoparticle immobilized palladium catalyst for the direct C-2 arylation of indoles with arylboronic acids

作者: Zhang, Lei 1 ; Li, Pinhua 1 ; Liu, Can 1 ; Yang, Jin 1 ; Wang, Min 1 ; Wang, Lei 2

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出版物信息: Catalysis Science and Technology 4.7 (Jan 1, 2014): 1979-1988.

[ProQuest 文档链接](#)

摘要 (English): A highly efficient Fe₃O₄ magnetic nanoparticle (MNP) immobilized palladium catalyst was prepared and applied to the direct C-2 arylation of indoles with arylboronic acids. The reactions generated the corresponding cross-coupling products in good yields. In addition, the supported catalyst with low loading (2.0 mol%) showed high stability and could be recovered and reused 8 times without significant loss of activity.

©The Royal Society of Chemistry 2014.

DOI: <http://dx.doi.org/10.1039/c4cy00040d>

ISSN: 20444753

主题: Loading (主要); Aromatic compounds; Catalysts; Chemical reactions; Nanoparticles

出版商: Royal Society of Chemistry

出版日期: Jan 1, 2014

出版物名称: Catalysis Science and Technology

出版物类型: Journal

分类: 672: Naval Vessels; 708: Electric and Magnetic Materials; 761: Nanotechnology; 802.2: Chemical Reactions; 803: Chemical Agents and Basic Industrial Chemicals; 804: Chemical Products Generally; 804.1: Organic Compounds; 933: Solid State Physics

分页: 1979-1988

创建日期: 2014-06-17

卷: 4

摘要语言: English

收录号: 20142517831581

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-22

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Arylations, Arylboronic acids, Cross-coupling products, Immobilized palladiums, Low loading, Magnetic nanoparticles

标题: A highly efficient and recyclable Fe_3O_4 magnetic nanoparticle immobilized palladium catalyst for the direct C-2 arylation of indoles with arylboronic acids

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第一个可用: 2014-06-22

语言: 英文

Facile anion-exchange synthesis of BiOI/BiOBr composite with enhanced photoelectrochemical and photocatalytic properties

作者: Lin, Haili 1 ; Ye, Huifang 1 ; Li, Xin 1 ; Cao, Jing 1 ; Chen, Shifu 1

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linhaili@mail.ipc.ac.cn ; chshifu@chnu.edu.cn

出版物信息: Ceramics International 40.7 PART A (Jan 1, 2014): 9743-9750.

[ProQuest 文档链接](#)

摘要 (English): A facile room temperature anion-exchange strategy was successfully adopted to synthesize the promising double visible-light excited BiOI/BiOBr composite photocatalyst. The X-ray diffraction (XRD), energy-dispersive spectroscopy (EDS), scanning electron microscopy (SEM), transmission electron microscopy (TEM), high-resolution transmission electron microscopy (HRTEM) and X-ray photoelectron spectroscopy (XPS) results jointly confirmed the formation of BiOI/BiOBr composite through replacing partial of Br^- to I^- . Moreover, BiOI/BiOBr composite exhibited much higher photocurrent intensity than pure BiOBr and BiOI, which perfectly

coincided with the enhanced photocatalytic activity for the degradation of methyl orange (MO) under visible light ($\lambda > 420$ nm). It is a prospective strategy for constructing highly efficient bismuth halide based composite to eliminate organic pollutants in water. ©2014 Elsevier Ltd and Techna Group S.r.l.

DOI: <http://dx.doi.org/10.1016/j.ceramint.2014.02.060>

ISSN: 02728842

主题: Photocatalysis (主要); Azo dyes; Composite materials; Energy dispersive spectroscopy; Photocatalysts; Photocurrents; Photoelectrons; Scanning electron microscopy; Transmission electron microscopy; Water pollution; X ray diffraction; X ray photoelectron spectroscopy

出版商: Elsevier Ltd

出版日期: Jan 1, 2014

出版物名称: Ceramics International

出版物类型: Journal

分类: 415: Metals, Plastics, Wood and Other Structural Materials; 453: Water Pollution; 711: Electromagnetic Waves; 741.1: Light and Optics; 741.3: Optical Devices and Systems; 801: Chemistry; 803: Chemical Agents and Basic Industrial Chemicals; 811: Cellulose, Paper and Wood Products; 931.3: Atomic and Molecular Physics; 951: Materials Science

分页: 9743-9750

创建日期: 2014-05-20

卷: 40

摘要语言: English

收录号: 20142117738131

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-05-25

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Bioi/biobr, Bismuth halides, Composite photocatalysts, Degradation of methyl oranges, Photocatalytic activities, Photocatalytic property, Photoelectrochemicals, Room temperature, Photocurrent

标题: Facile anion-exchange synthesis of BiOI/BiOBr composite with enhanced photoelectrochemical and photocatalytic properties

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第一个可用: 2014-05-25

语言: 英文

Conformationally restricted aza-dipyrromethene boron difluorides (aza-BODIPYs) with high fluorescent quantum yields

作者: Jiao, Lijuan 1 ; Wu, Yayang 1 ; Ding, Yin 1 ; Wang, Sufan 1 ; Zhang, Ping 1 ; Yu, Changjiang 1 ; Wei, Yun 1 ; Mu, Xiaolong 1 ; Hao, Erhong 1

1 Key Laboratory of Functional Molecular Solids, School of Chemistry and Materials Science, Anhui Normal University, Wuhu, 241000, China jiao421@mail.ahnu.edu.cn ; sfwang@mail.ahnu.edu.cn ; haoehong@mail.ahnu.edu.cn

出版物信息: Chemistry - An Asian Journal 9.3 (Jan 1, 2014): 805-810.

[ProQuest 文档链接](#)

摘要 (English): A simple approach to the highly fluorescent near-infrared aza-BODIPY dyes with higher fluorescence quantum yields (up to 0.81 in toluene) in comparison with their known analogues is presented. Our approach is based on the restricted rotations of the 1,7-phenyl groups to the mean plane of the aza-BODIPYs, which is achieved through the installation of bulky substituents on the 1,7-phenyl groups of aza-BODIPYs and results in a reduced nonradiative relaxation process in solution. The large torsion angles between the 1,7-phenyl groups and the aza-BODIPY core (φ_1 and φ_2 in these novel conformationally restricted aza-BODIPYs) were confirmed by X-ray diffraction studies. To dye for: Novel conformationally restricted aza-BODIPYs with bulky groups at the 1,7-phenyl groups were synthesized and characterized by X-ray diffraction studies and DFT calculations. These dyes show significantly higher fluorescence quantum yields (up to 0.81 in toluene) with respect to the known analogues. Copyright ©2014 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim.

DOI: <http://dx.doi.org/10.1002/asia.201301362>

ISSN: 18614728

主题: Fluorescence (主要); Quantum yield; Toluene; X ray diffraction

出版商: John Wiley and Sons Ltd

出版日期: Jan 1, 2014

出版物名称: Chemistry - An Asian Journal

出版物类型: Journal

分类: 741.1: Light and Optics; 801.4: Physical Chemistry; 804.1: Organic Compounds; 931.3: Atomic and Molecular Physics

分页: 805-810

创建日期: 2014-03-04

卷: 9

摘要语言: English

收录号: 20141017415904

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-05

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): BODIPY, Dyes/pigments, Fluorescence quantum yield, Heterocycles, N ligands, Nonradiative relaxation process, Restricted rotations, X-ray diffraction studies

标题: Conformationally restricted aza-dipyrromethene boron difluorides (aza-BODIPYs) with high fluorescent quantum yields

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第一个可用: 2014-03-05

语言: 英文

The roles of DNA damage-dependent signals and MAPK cascades in tributyltin-induced germline apoptosis in *Caenorhabditis elegans*

作者: Wang, Yun 1 ; Wang, Shunchang 1 ; Luo, Xun 1 ; Yang, Yanan 1 ; Jian, Fenglei 1 ; Wang, Xuemin 1 ; Xie, Lucheng 1

1 Department of Life Sciences, Huainan Normal University, Huainan, Anhui 232001, China
yunwang2001@163.com

出版物信息: Chemosphere 108 (Jan 1, 2014): 231-238.

[ProQuest 文档链接](#)

摘要 (English): The induction of apoptosis is recognized to be a major mechanism of tributyltin (TBT) toxicity. However, the underlying signaling pathways for TBT-induced apoptosis remain unclear. In this study, using the nematode *Caenorhabditis elegans*, we examined whether DNA damage response (DDR) pathway and mitogen-activated protein kinase (MAPK) signaling cascades are involved in TBT-induced germline apoptosis and cell cycle arrest. Our results demonstrated that exposing worms to TBT at the dose of 10. nM for 6. h significantly increased germline apoptosis in N2 strain. Germline apoptosis was absent in strains that carried *ced-3* or *ced-4* loss-of-function alleles, indicating that both caspase protein CED-3 and Apaf-1 protein CED-4 were required for TBT-induced apoptosis. TBT-induced apoptosis was blocked in the Bcl-2 gain-of-function strain *ced-9(n1950)*, whereas TBT induced a minor increase in the BH3-only protein EGL-1 mutated strain *egl-1(n1084n3082)*. Checkpoint proteins HUS-1 and CLK-2 exerted proapoptotic effects, and the null mutation of *cep-1*, the homologue of tumor suppressor gene p53, significantly inhibited TBT-induced apoptosis. Apoptosis in the loss-of-function strains of ERK, JNK and p38 MAPK signaling pathways were completely or mildly suppressed under TBT stress. These results were supported by the results of mRNA expression levels of corresponding genes. The present study indicated that TBT-induced apoptosis required the core apoptotic machinery, and that DDR genes and MAPK pathways played essential roles in signaling the processes. ©2014 Elsevier Ltd.

DOI: <http://dx.doi.org/10.1016/j.chemosphere.2014.01.045>

ISSN: 00456535

主题: Cell death (主要); Cell signaling; DNA; Gene expression; Insecticides; Machinery; Proteins

出版商: Elsevier Ltd

出版日期: Jan 1, 2014

出版物名称: Chemosphere

出版物类型: Journal

分类: 461: Bioengineering; 601: Mechanical Design; 804.1: Organic Compounds

分页: 231-238

创建日期: 2014-06-03

卷: 108

摘要语言: English

收录号: 20142317786642

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-08

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): *Caenorhabditis elegans*, DNA damage response, MAPK, Mitogen activated protein kinase, mRNA expression level, Pro-apoptotic effects, Tributyltin, Tumor suppressor genes, Apoptosis

标题: The roles of DNA damage-dependent signals and MAPK cascades in tributyltin-induced germline apoptosis in *Caenorhabditis elegans*

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第一个可用: 2014-06-08

语言: 英文

Matrix-bound phosphine and phosphorus fractions in surface sediments of Arctic Kongsfjorden, Svalbard: Effects of glacial activity and environmental variables

作者: Zhu, Renbin 1 ; Ding, Wei 1 ; Hou, Lijun 2 ; Wang, Qing 1

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China, Hefei City, Anhui Province 230026, China zhurb@ustc.edu.cn 2 State Key Laboratory of Estuarine and Coastal Research, East China Normal University, Shanghai 200062, China

出版物信息: Chemosphere 103 (Jan 1, 2014): 240-249.

[ProQuest 文档链接](#)

摘要 (English): The surface sediments were collected from the glacial bay (GLAC), the central basin (CENTR) and their transition area (TRANS) along the fjord Kongsfjorden axis on Svalbard, Arctic, and matrix-bound phosphine (MBP), phosphorus fractions and alkaline phosphatase activity (APA) were analyzed. MBP was found in all the sediments with the concentration range of 8.93-59.45ngkg⁻¹dw. The MBP levels in the CENTR sediments were two times higher than those in the GLAC and TRANS sediments, and the yield of phosphine (PH₃) as a fraction of total phosphorus ranged from 1.78×10⁻⁸ to 3.53×10⁻⁸mgPH₃mg⁻¹P. The CENTR and TRANS sediments showed higher concentrations of total phosphorus (TP), organic phosphorus (OP) and APA than the GLAC sediments, indicating that glacial activity had an important effect on the spatial variability in the concentrations of MBP and phosphorus fractions. There existed a significant positive correlation (p<0.01) between MBP and seawater depths, OP, TP, APA, total organic matter, total nitrogen and total sulfur. The multiple stepwise regression model ([MBP]=16.1[OP]+18.6[APA]-26.1pH+221.3) was obtained between MBP concentrations and environmental variables. This model could be used to predict MBP levels in the sediments. Our results indicated that the production of MBP was associated with OP decomposition and microbially mediated factors in the sediments of Kongsfjorden in Arctic. ©2013 Elsevier Ltd.

DOI: <http://dx.doi.org/10.1016/j.chemosphere.2013.12.011>

ISSN: 00456535

主题: Phosphorus (主要); Glacial geology; Phosphatases; Phosphorus compounds; Regression analysis; Sediments; Surficial sediments

出版商: Elsevier Ltd

出版日期: Jan 1, 2014

出版物名称: Chemosphere

出版物类型: Journal

分类: 481.1: Geology; 483: Soil Mechanics and Foundations; 804: Chemical Products Generally; 922.2: Mathematical Statistics

分页: 240-249

创建日期: 2014-03-27

卷: 103

摘要语言: English

收录号: 20141317499834

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-30

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Alkaline phosphatase activity, Arctic fjord, Environmental variables, Inorganic phosphorus, Matrix-bound phosphine, Multiple stepwise regression, Organic phosphorus, Phosphatase activity

标题: Matrix-bound phosphine and phosphorus fractions in surface sediments of Arctic Kongsfjorden, Svalbard: Effects of glacial activity and environmental variables

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第一个可用: 2014-03-30

语言: 英文

Molecular control of arsenite-induced apoptosis in *Caenorhabditis elegans*: Roles of insulin-like growth factor-1 signaling pathway

作者: Wang, Shunchang 1 ; Teng, Xiaoxue 2 ; Wang, Yun 1 ; Yu, Han-Qing 3 ; Luo, Xun 4 ; Xu, An 5 ; Wu, Lijun 5

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出版物信息: Chemosphere 112 (Jan 1, 2014): 248-255.

[ProQuest 文档链接](#)

摘要 (English): Apoptosis is one of the main cellular processes in responses to arsenic, the well known environmental carcinogen. By using the nematode *Caenorhabditis elegans* as an in vivo model, we found that insulin-like growth factor-1 networks and their target protein DAF-16/FOXO, known as key regulators of energy metabolism and growth, played important roles in arsenite-induced apoptosis. Inactivation of DAF-2, AGE-1 and AKT-1 caused worms more susceptible to arsenite-induced apoptosis, which could be attenuated by DAF-16 knockout. Worms with inactivated AKT-2 and SGK-1 or with constitutively activated PDK-1 and AKT-1 showed low levels of apoptosis, which could be elevated by DAF-16 mutation. Our results demonstrated that DAF-2/IGF-1R, AGE-1/PI3K, PDK-1/PDK1 and AKT-1/PKB negatively regulated the arsenite-induced apoptosis, whereas AKT-2 and SGK-1 acted proapoptotically. DAF-16/FOXO antagonized IGF-1 signals in signaling the arsenite-induced apoptosis, and apoptosis promoted by DAF-16 inactivation was attributed to its higher sensitivity to oxidative stress. ©2014 Elsevier Ltd.

DOI: <http://dx.doi.org/10.1016/j.chemosphere.2014.04.021>

ISSN: 00456535

主题: Cell death (主要); Insulin; Oxidative stress; Signaling

出版商: Elsevier Ltd

出版日期: Jan 1, 2014

出版物名称: Chemosphere

出版物类型: Journal

分类: 404: Civil Defense and Military Engineering; 461.2: Biological Materials; 461.9: Biology

分页: 248-255

创建日期: 2014-07-24

卷: 112

摘要语言: English

收录号: 20143017980965

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-28

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Arsenite, Caenorhabditis elegans, Cellular process, Energy metabolism, FOXO, Insulin-like growth factor-1, Molecular controls, Signaling pathways, Apoptosis

标题: Molecular control of arsenite-induced apoptosis in Caenorhabditis elegans: Roles of insulin-like growth factor-1 signaling pathway

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第一个可用: 2014-07-28

语言: 英文

A class of asymptotic solution for the time delay wind field model of an ocean

作者: Zhou, Xian-Chun 1 ; Shi, Lan-Fang 2 ; Mo, Jia-Qi 3

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and Statistics, Nanjing University of Information Science and Technology (NUIST), Nanjing 210044, China 3
Department of Mathematics, Anhui Normal University, Wuhu 241003, China

出版物信息: Chinese Physics B 23.4 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): A time delay model of a two-layer barotropic ocean with Rayleigh dissipation is built. Using the improved perturbation method, an analytic asymptotic solution of a better approximate degree is obtained in the mid-latitude wind field, and the physical meaning of the corresponding solution is also discussed. ©2014 Chinese Physical Society and IOP Publishing Ltd.

DOI: <http://dx.doi.org/10.1088/1674-1056/23/4/040202>

ISSN: 16741056

主题: Time delay (主要); Condensed matter physics; Physics

出版商: Institute of Physics Publishing

出版日期: Jan 1, 2014

出版物名称: Chinese Physics B

出版物类型: Journal

分类: 713: Electronic Circuits; 731: Automatic Control Principles and Applications; 931: Applied Physics Generally; 932: High Energy Physics; Nuclear Physics; Plasma Physics; 933: Solid State Physics

创建日期: 2014-05-06

卷: 23

摘要语言: English

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数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-05-12

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Asymptotic method, Asymptotic solutions, Barotropic, Corresponding solutions, Perturbation method, Physical meanings, Time delay model, Wind field modeling, two-layers barotropic

标题: A class of asymptotic solution for the time delay wind field model of an ocean

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第一个可用: 2014-05-12

语言: 英文

Efficient scheme for realizing quantum dense coding with GHZ state in separated low-Q cavities

作者: Sun, Qian 1 ; He, Juan 2 ; Ye, Liu 1

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出版物信息: Chinese Physics B 23.6 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): We propose an efficient scheme for realizing quantum dense coding with three-particle GHZ state in separated low-Q cavities. In this paper, the GHZ state is first prepared with three atoms trapped, respectively, in three spatial separated cavities. Meanwhile, with the assistance of a coherent optical pulse and X-quadrature homodyne measurement, we can implement quantum dense coding with three-particle GHZ state with a higher probability. Our scheme can also be generalized to realize N-particle quantum dense coding.

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DOI: <http://dx.doi.org/10.1088/1674-1056/23/6/060305>

ISSN: 16741056

主题: Quantum efficiency (主要); Codes (symbols); Quantum entanglement; Separation

出版商: Institute of Physics Publishing

出版日期: Jan 1, 2014

出版物名称: Chinese Physics B

出版物类型: Journal

分类: 723.2: Data Processing; 802.3: Chemical Operations; 931.4: Quantum Theory

创建日期: 2014-06-16

卷: 23

摘要语言: English

收录号: 20142417819850

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-22

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Coherent optical pulse, Efficient schemes, GHZ state, Homodyne measurements, low-Q cavity, Quantum dense coding, X-quadrature homodyne measurement

标题: Efficient scheme for realizing quantum dense coding with GHZ state in separated low-Q cavities

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第一个可用: 2014-06-22

语言: 英文

Dynamics of entanglement under decoherence in noninertial frames

作者: Shi, Jia-Dong 1 ; Wu, Tao 2 ; Song, Xue-Ke 1 ; Ye, Liu 1

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出版物信息: Chinese Physics B 23.2 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): In this paper, we investigate the entanglement dynamics of a two-qubit entangled state coupled with its noisy environment, and plan to utilize weak measurement and quantum reversal measurement to study the entanglement dynamics under different decoherence channels in noninertial frames. Through the calculations and analyses, it is shown that the weak measurement can prevent entanglement from coupling to the amplitude damping channel, while the system is under the phase damping and flip channels. This protection protocol cannot prevent entanglement but will accelerate the death of entanglement. In addition, if the system is in the noninertial reference frame, then the effect of weak measurement will be weakened for the amplitude damping channel. Nevertheless, for other decoherence channels, the Unruh effect does not affect the quantum weak measurement, the only exception is that the maximum value of entanglement is reduced to 2/2 of the original value in the inertial frames. ©2014 Chinese Physical Society and IOP Publishing Ltd.

DOI: <http://dx.doi.org/10.1088/1674-1056/23/2/020310>

ISSN: 16741056

主题: Quantum entanglement (主要); Dynamics; Measurements

出版商: Institute of Physics Publishing

出版日期: Jan 1, 2014

出版物名称: Chinese Physics B

出版物类型: Journal

分类: 931.1: Mechanics; 931.4: Quantum Theory; 941: Acoustical and Optical Measuring Instruments; 942: Electric and Electronic Measuring Instruments; 943: Mechanical and Miscellaneous Measuring Instruments; 944: Moisture, Pressure and Temperature; Radiation Measuring Instruments

创建日期: 2014-02-26

卷: 23

摘要语言: English

收录号: 20140917381609

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-05

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Amplitude damping, Decoherence, Entangled state, Entanglement dynamics, Noisy environment, Non-inertial frame, Reference frame, Weak measurements, entanglement protection protocols, noninertial frames

标题: Dynamics of entanglement under decoherence in noninertial frames

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第一个可用: 2014-03-05

语言: 英文

Exponential stability of nonlinear impulsive and Switched time-delay systems with delayed impulse effects

作者: Gao, Lijun 1 ; Wu, Yuqiang 1 ; Shen, Hao 2

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出版物信息: Circuits, Systems, and Signal Processing 33.7 (Jan 1, 2014): 2107-2129.

[ProQuest 文档链接](#)

摘要 (English): The exponential stability problem is considered for a class of nonlinear impulsive and switched time-delay systems with delayed impulse effects by using the method of multiple Lyapunov-Krasovskii functionals. Lyapunov-based sufficient conditions for exponential stability are derived, respectively, for stabilizing delayed impulses and destabilizing delayed impulses. It is shown that even if all the subsystems governing the continuous dynamics without impulse input delays are not exponential stable, if impulsive and switching signal satisfy a dwell-time upper bound condition, stabilizing delayed impulses can stabilize the systems in the exponential stability sense. Moreover, it is also shown that if the magnitude of the delayed impulses is sufficiently small, the exponential stability properties can be derived irrespective of the size of the impulse input delays under some conditions. The opposite situation is also developed. The efficiency of the proposed results is illustrated by two numerical examples. ©2014 Springer Science+Business Media New York.

DOI: <http://dx.doi.org/10.1007/s00034-014-9743-3>

ISSN: 0278081X

主题: Continuous time systems (主要); Delay control systems; Lyapunov functions; Time delay

出版商: Birkhauser Boston

出版日期: Jan 1, 2014

出版物名称: Circuits, Systems, and Signal Processing

出版物类型: Journal

分类: 713: Electronic Circuits; 731: Automatic Control Principles and Applications; 731.1: Control Systems; 921: Applied Mathematics

分页: 2107-2129

创建日期: 2014-06-29

卷: 33

摘要语言: English

收录号: 20142617872749

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-06

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Continuous dynamics, Delayed impulse, Impulse effect, Impulsive systems, Lyapunov-Krasovskii functionals, Switching signals, Time-delay systems, Time-delayed systems, Multiple Lyapunov-Krasovskii functionals, Switched time-delayed systems

标题: Exponential stability of nonlinear impulsive and Switched time-delay systems with delayed impulse effects

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第一个可用: 2014-07-06

语言: 英文

Adsorption and diffusion of lithium on 1T-MoS₂ monolayer

作者: Xu, B. 1 ; Wang, L. 2 ; Chen, H.J. 2 ; Zhao, J. 3 ; Liu, G. 2 ; Wu, M.S. 2

1 Department of Physics, Jiangxi Normal University, Nanchang, Jiangxi 330022, China, Department of Physics, University of Science and Technology of China, Hefei, Anhui 230026, China bxu4@mail.ustc.edu.cn 2 Department of Physics, Jiangxi Normal University, Nanchang, Jiangxi 330022, China 3 School of Software,

Jiangxi Normal University, Nanchang, Jiangxi 330022, China

出版物信息: Computational Materials Science 93 (Jan 1, 2014): 86-90.

[ProQuest 文档链接](#)

摘要 (English): Using first-principles calculations, we investigate the Li adsorption and diffusion on the 1T-MoS₂ monolayer. Our calculations demonstrate that the binding energy decreases with the increase of the Li concentration, regardless of adsorption on one side or two sides. The binding energy corresponding to the case of Li:Mo = 2:1 is still higher than the cohesive energy of metal Li. The diffusion energy barrier of Li atom is closely related with the Li concentration, larger than that of Li on 1H-MoS₂ but comparable to that of LiFePO₄. Our calculations suggest that 1T-MoS₂ monolayer could be a promising electrode material for lithium ion batteries in terms of lithium storage capacity and diffusion kinetics. ©2014 Elsevier B.V. All rights reserved.

DOI: <http://dx.doi.org/10.1016/j.commat.2014.06.033>

ISSN: 09270256

主题: Lithium (主要); Adsorption; Binding energy; Calculations; Density functional theory; Diffusion; Lithium compounds; Molybdenum; Molybdenum compounds; Monolayers

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Computational Materials Science

出版物类型: Journal

分类: 543.3: Molybdenum and Alloys; 549.1: Alkali Metals; 721: Computer Circuits and Logic Elements; 723: Computer Software, Data Handling and Applications; 801.4: Physical Chemistry; 802.3: Chemical Operations; 804.1: Organic Compounds; 813.2: Coating Materials; 921: Applied Mathematics; 931: Applied Physics Generally

分页: 86-90

创建日期: 2014-07-28

卷: 93

摘要语言: English

收录号: 20143017990037

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-08-04

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Cohesive energies, Diffusion energy barriers, Diffusion kinetics, Electrode material, First-principles calculation, Lithium storage capacity, Lithium-ion battery, Density functional calculations

标题: Adsorption and diffusion of lithium on 1T-MoS₂ monolayer

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第一个可用: 2014-08-04

语言: 英文

Density functional theory study on electronic and photocatalytic properties of orthorhombic AgInS₂

作者: Liu, Jianjun 1 ; Chen, Shifu 2 ; Liu, Qinzhuang 1 ; Zhu, Yongfa 3 ; Lu, Yanfeng 1

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出版物信息: Computational Materials Science 91 (Jan 1, 2014): 159-164.

[ProQuest 文档链接](#)

摘要 (English): Band structures, density of states and photocatalytic properties of orthorhombic AgInS₂ are calculated using density functional theory. The results show that orthorhombic AgInS₂ has a direct band gap of about 2.09 eV, which is according to the experimental value. Calculated positions of the valence bands maximum and conduction bands minimum indicate that AgInS₂ has strong redox ability to decompose organic pollutants and split water into hydrogen under visible light irradiation. Distortions in AgS₄ and InS₄ tetrahedra promote the separation of electron-hole pairs and the lighter effective mass of electrons facilitate the migration of electrons to the surface, resulting in improved photocatalytic performance. ©2014 Elsevier B.V. All rights reserved.

DOI: <http://dx.doi.org/10.1016/j.commat.2014.05.010>

ISSN: 09270256

主题: Photocatalysis (主要); Band structure; Density functional theory; Water pollution

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Computational Materials Science

出版物类型: Journal

分类: 453: Water Pollution; 741.1: Light and Optics; 933: Solid State Physics; 933.3: Electronic Structure of Solids

分页: 159-164

创建日期: 2014-06-03

卷: 91

摘要语言: English

收录号: 20142317782589

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-08

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Ab initio calculations, Density functional theory studies, Electron hole pairs, Experimental values, Photocatalytic performance, Photocatalytic property, Visible-light irradiation, Photocatalytic properties

标题: Density functional theory study on electronic and photocatalytic properties of orthorhombic AgInS_2

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第一个可用: 2014-06-08

语言: 英文

Geoinformatics-based study on the regionalization of ecological function in the Chaohu Lake Basin, East China

作者: Wu, Li 1 ; Wang, Xinyuan 2

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Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, Haidian, 100094 Beijing, China
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出版物信息: Computer Modelling and New Technologies 18.3 (Jan 1, 2014): 267-270.

[ProQuest 文档链接](#)

摘要 (English): Ecological function regionalization is a kind of geographic spatial division, which is based on the spatial differentiation of ecosystem functions. Based on an analysis of the primary features of the ecological environment of Chaohu Lake Basin in Anhui Province, the principles, bases, methodology and nomenclature of ecological function regionalization were determined. As the sub-valley is an independent geographical unit within the lake basin, its ecosystem sustains ecological integrity from the upstream through to the downstream. Therefore, ensuring the monitoring and management of the regional ecological environment in the sub-valley unit is of great importance to the conservation and ecological restoration of the regional ecosystem. Through extraction of land use information from remote sensing data, and sub-valley division from DEM analysis, this paper discusses the methodology of sub-valley ecological function regionalization in the research area based on the application of geoinformatics technology (e.g. RS and GIS technology). The ecological function regionalization of the Chaohu Lake Basin is then calculated, and the five ecological function regions and twelve sub-regions are subdivided. This study has an important practical relevance for the integrated management of the ecological environment of the Chaohu Lake Basin, and provides scientific grounds for the improved industrial distribution, ecological hazard prevention and reduction, environmental protection and construction planning in this area.

ISSN: 14075806

主题: Environmental management (主要); Ecosystems; Geographic information systems; Lakes; Landforms

出版商: Transport and Telecommunication Institute

出版日期: Jan 1, 2014

出版物名称: Computer Modelling and New Technologies

出版物类型: Journal

分类: 407: Maritime and Port Structures; Rivers and Other Waterways; 454: Environmental Engineering; 481.1: Geology; 723.3: Database Systems

分页: 267-270

创建日期: 2014-06-25

卷: 18

摘要语言: English

收录号: 20142617867360

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-29

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Chaohu lakes, Ecological environments, Ecological functions, Ecological restoration, Industrial distribution, Monitoring and management, RS and GIS, Spatial differentiation, Chaohu lake Basin, Ecological environment, Ecological function regionalization

标题: Geoinformatics-based study on the regionalization of ecological function in the Chaohu Lake Basin, East China

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第一个可用: 2014-06-29

语言: 英文

Wireless sensor network positioning based on the unilateral side of two reference nodes

作者: Shuai, Chen 1 ; Reny, Shu 2 ; Shuifeng, Zhang 1

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出版物信息: Computers and Electrical Engineering 40.2 (Jan 1, 2014): 367-373.

[ProQuest 文档链接](#)

摘要 (English): We propose a new theory and method for unilateral positioning based on two reference nodes to reduce the number of reference nodes used in unilateral node deployment. In the method, a blind node obtains the location and distance of two reference nodes by establishing equations intended to derive two sets of solutions. The positioning solution of the blind node is then determined on the basis of one side of the line that connects the two reference nodes. To verify the accuracy of the new method, the proposed positioning theory is interpreted and simulated in a MATLAB environment. Results show that the highly accurate positioning generated by the proposed method is attributed to its basic principle and right method, thereby reducing the number of reference nodes needed for positioning in wireless sensor networks. ©2013 Elsevier Ltd. All rights reserved.

DOI: <http://dx.doi.org/10.1016/j.compeleceng.2013.09.006>

ISSN: 00457906

主题: Sensor nodes (主要); Computer science; Electrical engineering

出版商: Elsevier Ltd

出版日期: Jan 1, 2014

出版物名称: Computers and Electrical Engineering

出版物类型: Journal

分类: 709: Electrical Engineering, General; 721: Computer Circuits and Logic Elements; 722: Computer Hardware; 723: Computer Software, Data Handling and Applications

分页: 367-373

创建日期: 2014-03-27

卷: 40

摘要语言: English

收录号: 20141317515636

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-30

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Basic principles, Highly accurate, MATLAB environment, New theory, Node deployment, Reference nodes

标题: Wireless sensor network positioning based on the unilateral side of two reference nodes

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第一个可用: 2014-03-30

语言: 英文

New conjugated organic dyes with various electron donors: One- and two-photon excited fluorescence, and bioimaging

作者: Jin, Feng 1 ; Xu, Dong-Ling 2 ; Zhu, Hui-Zhi 2 ; Yan, Yan 2 ; Zheng, Jun 3 ; Zhang, Jun 2 ; Zhou, Hong-Ping 2 ; Wu, Jie-Ying 2 ; Tian, Yu-Peng 2

1 College of Chemistry and Chemical Engineering, Anhui University, Hefei 230039, China, Department of Chemistry, Fuyang Normal College, Fuyang 236041, China 2 College of Chemistry and Chemical Engineering, Anhui University, Hefei 230039, China zhpzhp@263.net 3 Center of Modern Experimental Technology, Anhui University, Hefei 230039, China

出版物信息: Dyes and Pigments 109 (Jan 1, 2014): 42-53.

[ProQuest 文档链接](#)

摘要 (English): Six new fluorescent donor- π bridge-acceptor (D- π -A) structural molecules with various electron donors were synthesized and fully characterized. Influence of electron-donating strength on optical properties was investigated by the systematic alteration of the electron donors. The optical properties of the dyes were successfully tuned by choosing different electron donors. All the dyes in solution show strong one-photon excited fluorescence (OPEF) and high quantum yield. With increasing electron-donating strength of donors, dye 5 with diphenylamine and dye 6 with (4,4'-diethoxyphenyl)amino substituents, exhibit strong two-photon excited fluorescence (TPEF), and the large two-photon absorption (TPA) cross-section values are 1378 GM for 5 and 1654 GM for 6. The structure-property relationships were detailed through quantum chemical calculations and X-ray crystallography. The results of living cell imaging experiments show the values of them in one- or two-photon fluorescence microscopy bioimaging applications. ©2014 Elsevier Ltd. All rights reserved.

DOI: <http://dx.doi.org/10.1016/j.dyepig.2014.04.032>

ISSN: 01437208

主题: Electrons (主要); Fluorescence; Luminescence of organic solids; Optical properties; Photons; Quantum chemistry; Synthesis (chemical); Two photon processes; X ray crystallography

出版商: Elsevier Ltd

出版日期: Jan 1, 2014

出版物名称: Dyes and Pigments

出版物类型: Journal

分类: 701.1: Electricity, Basic Concepts and Phenomena; 741.1: Light and Optics; 801.4: Physical Chemistry; 802.2: Chemical Reactions; 933.1.1: Crystal Lattice

分页: 42-53

创建日期: 2014-06-03

卷: 109

摘要语言: English

收录号: 20142317782375

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-08

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Bio-imaging, Electron donors, Excited fluorescence, Structure property relationships, Two-photon absorptions, Two-photon excited fluorescence, Bioimaging, Electron donor, One-photon excited fluorescence, Structure-property relationship, Two-photon absorption

标题: New conjugated organic dyes with various electron donors: One- and two-photon excited fluorescence, and bioimaging

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第一个可用: 2014-06-08

语言: 英文

Fabrication of nanoporous twisted TiO₂ strips for use in dye-sensitized solar cells

作者: Wangz, Juangang 1 ; Liu, Lihua 1

1 College of Chemistry and Material Science, Huaibei Normal University, Huaibei, 235000 Anhui, China
shanxiwangjuangang@163.com

出版物信息: ECS Electrochemistry Letters 3.4 (Jan 1, 2014): H5-H7.

[ProQuest 文档链接](#)

摘要 (English): In this work, we report a type of dye-sensitized cell in which the traditional nanoparticulate photoelectrode film is replaced by nanoporous twisted TiO₂ strip (NATS) photoelectrode film, which provides a larger surface area. The NATS photoelectrode displays markedly higher charge-collection efficiency than the nanoparticulate photoelectrode. ©2014 The Electrochemical Society.

DOI: <http://dx.doi.org/10.1149/2.010404eel>

ISSN: 21628726

主题: Titanium dioxide (主要); Dye-sensitized solar cells; Solar cells

出版商: Electrochemical Society Inc.

出版日期: Jan 1, 2014

出版物名称: ECS Electrochemistry Letters

出版物类型: Journal

分类: 615.2: Solar Power; 804.2: Inorganic Compounds

分页: H5-H7

创建日期: 2014-07-30

卷: 3

摘要语言: English

收录号: 20142717879342

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-08-04

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Dye sensitized, Dye-Sensitized solar cell, Nano particulates, Nano-porous, Photoelectrode, Surface area, TiO

标题: Fabrication of nanoporous twisted TiO₂ strips for use in dye-sensitized solar cells

版权: Copyright 2014 Elsevier B.V., All rights reserved.

第一个可用: 2014-08-04

语言: 英文

Incorporating biological inspired optimization into modeling of district heating networks

作者: Shang, Leiming 1 ; Zhao, Xiaomin 2 ; Qu, Hongchun 3

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出版物信息: Energy Education Science and Technology Part A: Energy Science and Research 32.2 (Jan 1, 2014): 1347-1354.

[ProQuest 文档链接](#)

摘要 (English): In this paper, we proposed a biologically inspired model to solve the optimization problem of building district heating networks. The optimization strategy of the model was inspired from physiological observations of the food foraging procedure of the true slime mold *Physarum polycephalum* (plasmodium) which was found and proved to be able to find optimal path in complex networks such as mazes and road maps. We developed a simulation model to mimic the food foraging procedure of the plasmodium to help to generate heating distribution networks. Simulation results were compared to a well-tuned ant colony algorithm and a genetic algorithm which were used to build the same heating network. The results indicated that although there was not large-scale efficiency savings had been made, the biologically inspired simulation model is capable of finding optimal heating distribution network which is of equal or better optimality than the compared ant colony algorithm and genetic algorithm and, to achieve network robustness, stability and reliability. ©Sila Science.

ISSN: 1308772X

主题: Algorithms (主要); Complex networks; Computer simulation; District heating; Genetic algorithms; Heating equipment; Optimization; Physiological models; Thermal processing (foods)

出版商: Sila Science

出版日期: Jan 1, 2014

出版物名称: Energy Education Science and Technology Part A: Energy Science and Research

出版物类型: Journal

分类: 461.1: Biomedical Engineering; 643.1: Space Heating; 643.2: Space Heating Equipment and Components; 722: Computer Hardware; 723: Computer Software, Data Handling and Applications; 723.5: Computer Applications; 822.2: Food Processing Operations; 921: Applied Mathematics; 921.5: Optimization Techniques

分页: 1347-1354

创建日期: 2014-06-03

卷: 32

摘要语言: English

收录号: 20142317785761

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-08

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Amoeboid movements, Ant colony algorithms, Biologically inspired models, District heating networks, Heating network, *Physarum polycephalum*, Physiological observation, Stability and reliabilities, Amoeboid movement model, Ant colony algorithm, Complex network

标题: Incorporating biological inspired optimization into modeling of district heating networks

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第一个可用: 2014-06-08

语言: 英文

Distribution of nitrogen forms in surface sediments of lakes from different regions, China

作者: Huo, Shouliang 1 ; Zhang, Jingtian 1 ; Xi, Beidou 1 ; Zan, Fengyu 2 ; Su, Jing 1 ; Yu, Hong 1

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出版物信息: Environmental Earth Sciences 71.5 (Jan 1, 2014): 2167-2175.

[ProQuest 文档链接](#)

摘要 (English): The characteristics of nitrogen fractions in the surface sediments of lakes from Eastern Plain Region, Yunnan-Guizhou Plateau Region, Northeast China Region, Qinghai-Tibet Plateau Region and Mongolia-Xinjiang Plateau Region were investigated and the differences of five lake regions on nitrogen fractionation were discussed. The results indicated that organic nitrogen (N_{org}) was the major nitrogen fraction accounting for 76.38-92.02 % of N_{tot} in sediments. The rank order of average N_{org} and N_{tot} of sediments in five lake regions was: Yunnan-Guizhou Plateau Region >Northeast China Region >Mongolia-Xinjiang Plateau Region >Qinghai-Tibet Plateau Region >Eastern Plain Region. The exchangeable nitrogen had a similar distribution as organic nitrogen in the studied sediments. NH_4^+-N is the main exchangeable nitrogen of sediments in the studied lakes except in Lake Qinghai and Lake Yamdrok which contained higher nitrate concentrations than ammonium. Fixed ammonium (N_{fix}) in the sediments of studied lakes was irregularly distributed with the values ranging from 99.45 to 329.02 mg/kg. TOC was significantly and positively correlated with ammonium, nitrate, N_{org} and N_{tot} , while N_{fix} was negatively correlated with nitrate probably due to electrostatic attraction between N_{fix} and nitrate in layers of sediments. ©2013 Springer-Verlag Berlin Heidelberg.

DOI: <http://dx.doi.org/10.1007/s12665-013-2622-6>

ISSN: 18666280

主题: Nitrogen (主要); Lakes; Nitrates; Sediments; Surficial sediments

出版商: Springer Verlag

出版日期: Jan 1, 2014

出版物名称: Environmental Earth Sciences

出版物类型: Journal

分类: 407: Maritime and Port Structures; Rivers and Other Waterways; 483: Soil Mechanics and Foundations; 804: Chemical Products Generally; 804.2: Inorganic Compounds

分页: 2167-2175

创建日期: 2014-02-20

卷: 71

摘要语言: English

收录号: 20140817350611

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-04

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Distribution, Electrostatic attractions, Nitrate concentration, Nitrogen fraction, Northeast China, Organic nitrogen, Qinghai Tibet plateau, Surface sediments, Lake regions

标题: Distribution of nitrogen forms in surface sediments of lakes from different regions, China

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第一个可用: 2014-03-04

语言: 英文

Characteristics of dissolved organic nitrogen (DON) in the surface water of Beijing Olympic Forest Park

作者: Huo, Shouliang 1 ; Yu, Honglei 2 ; Xi, Beidou 1 ; Zan, Fengyu 2 ; Zhu, Chaowei 1 ; Zhang, Jingtian 1

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出版物信息: Environmental Earth Sciences 71.9 (Jan 1, 2014): 4021-4028.

[ProQuest 文档链接](#)

摘要 (English): The characteristics of dissolved organic nitrogen (DON) in surface water from Beijing Olympic Forest Park (BOFP) were investigated in this study. Nanofiltration (NF) pretreatment procedure using two NF membranes (NF90 and NF270) was applied to increase the accuracy and precision of DON measurements in surface water samples with high dissolved inorganic nitrogen/total dissolved nitrogen (DIN/TDN) ratios. Compared to NF90, NF270 showed better performance in lowering the DIN/TDN ratio and retaining DOC in both the synthetic water and raw water samples. DON concentrations ranged from 0.01 to 0.83 mg N L⁻¹ in water samples collected over four different months and showed a seasonal variation. The DON increased in

summer due to the higher activity of decomposers on recent litterfall or because of a higher production of biomass in the surface water body. The molecular weight (MW) fractions of <3 kDa accounted for more than 50 % of the total DOC concentration and the fractions of <3 kDa contributed to more than 48 % of the total DON concentration. It could be concluded that most of the DON present in surface water of BOFP was composed of small molecules, which were mainly composed of monomers such as amino acids and urea, readily available for the uptake by phytoplankton and heterotrophic bacteria. ©2013 Springer-Verlag Berlin Heidelberg.

DOI: <http://dx.doi.org/10.1007/s12665-013-2785-1>

ISSN: 18666280

主题: Surface waters (主要); Amino acids; Dissolution; Forestry; Molecular weight distribution; Nanofiltration; Nitrogen; Urea

出版商: Springer Verlag

出版日期: Jan 1, 2014

出版物名称: Environmental Earth Sciences

出版物类型: Journal

分类: 444.1: Surface Water; 461: Bioengineering; 801: Chemistry; 802.3: Chemical Operations; 804: Chemical Products Generally; 804.1: Organic Compounds; 821.0: Woodlands and Forestry

分页: 4021-4028

创建日期: 2014-04-30

卷: 71

摘要语言: English

收录号: 20141817652685

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-05-05

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Accuracy and precision, Dissolved inorganic nitrogens, Dissolved nitrogen, Dissolved organic nitrogen, DOC concentrations, Heterotrophic bacterias, Pretreatment procedure, Surface water body, Dissolved organic nitrogen (DON), Surface water

标题: Characteristics of dissolved organic nitrogen (DON) in the surface water of Beijing Olympic Forest Park

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第一个可用: 2014-05-05

语言: 英文

Environmental monitoring and assessment of the water bodies of a pre-construction urban wetland

作者: Zuo, Shengpeng 1 ; Wan, Kun 1 ; Zhou, Shoubiao 1 ; Ye, Liangtao 1 ; Ma, Sumin 1

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出版物信息: Environmental Monitoring and Assessment 186.11 (Jan 1, 2014): 7349-7355.

[ProQuest 文档链接](#)

摘要 (English): It is planned that the Dayanghan Wetland in China will be transformed into a national park but little is known about its current water quality and pollution status. Thus, we monitored the physical and chemical characteristics of the Dayanghan Wetland, which showed that the water quality was generally good. However, the chemical oxygen demand was more than double the reference value, which may be attributable to previous tillage for vegetable crops and other farmlands. In addition, nickel and chromium caused low-level pollution in the water bodies of the Dayanghan Wetland. The mean trophic level index and nutrient quality index were 39.1 and 2.69, respectively. Both indices suggest that the water bodies of the Dayanghan Wetland are in a mesotrophic state and that no eutrophication has occurred. The study would provide a precise report on the status of environmental quality of the water bodies of a typical pre-construction wetland for the administration and decision of the local government and the planning agent.

DOI: <http://dx.doi.org/10.1007/s10661-014-3931-2>

ISSN: 01676369

主题: Eutrophication (主要); Heavy metals

出版商: Kluwer Academic Publishers

出版日期: Jan 1, 2014

出版物名称: Environmental Monitoring and Assessment

出版物类型: Journal

分类: 453: Water Pollution; 531: Metallurgy and Metallography

分页: 7349-7355

创建日期: 2014-11-19

卷: 186

摘要语言: English

收录号: 201436008390

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: Revised

文档类型: Article

更新: 2014-11-24 2014-11-25

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Dayanghan wetlands, Environmental Monitoring, Pollution assessment, Pre-construction, Urban wetlands, Waterbodies, Dayanghan Wetland, Heavy metal

标题: Environmental monitoring and assessment of the water bodies of a pre-construction urban wetland

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第一个可用: 2014-11-24

语言: 英文

Application of dynamic data driven application system in environmental science

作者: Song, Jingwei 1 ; Xiang, Bo 1 ; Wang, Xinyuan 2 ; Wu, Li 3 ; Chang, Chun 1

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出版物信息: Environmental Reviews 22.3 (Jan 1, 2014): 287-297.

[ProQuest 文档链接](#)

摘要 (English): The paradigm of dynamic data driven application system (DDDAS) has been proposed as a framework to analyze and predict the character and behavior of complex systems that influence computational models significantly. Its accuracy and efficiency lies in its ability to integrate observations on different temporal and spatial scales from real-time sensors, and in its measurement steering and controlling capabilities. Many problems in environmental sciences are nonlinear and complex, impossible to solve by using input/output sequence flows without feedback control. Nonlinear system efficiency depends on measurement control and steering, on-line data assimilation, and model selection with dynamic optimization. Compared with traditional methods, DDDAS possesses the capacity to overcome these limitations. This paper discusses DDDAS and classifies typical cases of its application in environmental sciences into three levels of paradigm. Short reviews of multi-model simulation and data assimilation are provided for practical use. Recent developments and future perspectives are reviewed. Future work may address determining automatically where, when, and how to acquire real-time data, and its integration with GIS, to improve efficiency and accuracy. User-generated content will find wide application in the future. Considering the differences between DDDAS and other data-driven methods in solving the same nonlinear complex system problems, a combination of nonlinear science and chaos theory is advocated. ©2014 Published by NRC Research Press.

DOI: <http://dx.doi.org/10.1139/er-2013-0071>

ISSN: 11818700

主题: Environmental engineering (主要); Chaos theory; Efficiency; Geographic information systems; Large scale systems; Nonlinear systems

出版商: National Research Council of Canada

出版日期: Jan 1, 2014

出版物名称: Environmental Reviews

出版物类型: Journal

分类: 454: Environmental Engineering; 723.3: Database Systems; 913.1: Production Engineering; 921: Applied Mathematics; 922: Statistical Methods; 961: Systems Science

分页: 287-297

创建日期: 2014-09-03

卷: 22

摘要语言: English

收录号: 20143618135419

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Review

更新: 2014-09-07

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Dynamic Data Driven Application Systems, Dynamic optimization, Environmental science, Measurement control, Multi-Model Simulations, Nonlinear complex systems, Temporal and spatial scale, User-generated content, Dynamic data driven application system, GIS, Nonlinear system

标题: Application of dynamic data driven application system in environmental science

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第一个可用: 2014-09-07

语言: 英文

Dynamical processes of low-energy carbon ion collision with the graphene supported by diamond

作者: Dai, Jinxia 1 ; Zhang, Chao 2 ; Mao, Fei 1 ; Cheng, Wei 1 ; Zhang, Feng-Shou 3

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出版物信息: EPJ Applied Physics 67.3 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): The dynamical processes of a low-energy carbon ion collision with the graphene sheet supported by diamond at three impact positions are studied by using empirical potential molecular dynamics simulations. The energy transformation and the structural evolution have been studied. Five types of processes are observed: adsorption, hybridization, defects formation in diamond, atom emission and transmission. We find that the irradiation damage is closely related to the incident energy and impact position. In our simulations, as the projectile collides at a graphene atom, it transfers most of its energy to the primary knock-on atom, and defects are created in graphene. When the projectile moves perpendicular towards the center of a C-C bond in the graphene sheet, the energy transferred from the projectile to the atoms associated with the bond increases firstly and then decreases with the increasing incident energy, and the graphene sheet remains two-dimensional crystal structure after collision when the incident energy is larger than 360 eV. While the impact location is the center of a hexagonal ring on the graphene sheet, the energy transferred from the projectile to the atoms of the target ring is very small regardless of how large is the incident energy, and the graphene sheet is able to keep perfect crystal structure when the incident energy is larger than 34 eV. ©2014 EDP Sciences .

DOI: <http://dx.doi.org/10.1051/epjap/2014140085>

ISSN: 12860042

主题: Graphene (主要); Atoms; Defects; Diamonds; Ion sources; Molecular dynamics; Projectiles

出版日期: Jan 1, 2014

出版物名称: EPJ Applied Physics

出版物类型: Journal

分类: 423: Non Mechanical Properties and Tests of Building Materials; 482.2.1: Gems; 654: Rockets and Rocket Propulsion; 761: Nanotechnology; 801.4: Physical Chemistry; 804: Chemical Products Generally; 931.3: Atomic and Molecular Physics; 932.1: High Energy Physics; 951: Materials Science

创建日期: 2014-08-27

卷: 67

摘要语言: English

收录号: 20143518097207

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-08-31

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Dynamical process, Empirical potentials, Energy transformation, Irradiation Damage, Molecular dynamics simulations, Primary knock-on atoms, Structural evolution, Two-dimensional crystals

标题: Dynamical processes of low-energy carbon ion collision with the graphene supported by diamond

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第一个可用: 2014-08-31

语言: 英文

Physicochemical properties, antioxidant activities and protective effect against acute ethanol-induced hepatic injury in mice of foxtail millet (*Setaria Italica*) bran oil

作者: Pang, Min 1 ; He, Shujian 1 ; Wang, Lu 2 ; Cao, Xinmin 1 ; Cao, Lili 1 ; Jiang, Shaotong 1

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出版物信息: Food and Function 5.8 (Jan 1, 2014): 1763-1770.

[ProQuest 文档链接](#)

摘要 (English): This study was designed to investigate physicochemical characterization of the oil extracted from foxtail millet bran (FMBO), and the antioxidant and hepatoprotective effects against acute ethanol-induced hepatic injury in mice. GC-MS analysis revealed that unsaturated fatty acids (UFAs) account for 83.76% of the total fatty acids; in particular, the linoleic acid (C18:2) is the predominant polyunsaturated fatty acid (PUFA), and the compounds of squalene and six phytosterols (or phytostanols) were identified in unsaponifiable matter of FMBO. The antioxidant activity examination of FMBO in vitro showed highly ferric-reducing antioxidant power and scavenging effects against DPPH· and HO· radicals. Furthermore, the protective effect of FMBO against acute hepatic injuries induced by ethanol was verified in mice. In this, intragastric administration with different dosages of FMBO in mice ahead of acute ethanol administration could observably antagonize the ethanol-induced increases in serum alanine aminotransferase (ALT), aspartate aminotransferase (AST), triglyceride (TG), and the hepatic malondialdehyde (MDA) levels, respectively, along with enhanced hepatic superoxide dismutase (SOD) levels relative to the control. Hepatic histological changes were also observed and confirmed that FMBO is capable of attenuating ethanol-induced hepatic injury. ©the Partner Organisations 2014.

DOI: <http://dx.doi.org/10.1039/c4fo00106k>

ISSN: 20426496

主题: Ethanol (主要); Amino acids; Antioxidants; Linoleic acid; Mammals; Oxygen; Plants (botany); Polyunsaturated fatty acids

出版商: Royal Society of Chemistry

出版日期: Jan 1, 2014

出版物名称: Food and Function

出版物类型: Journal

分类: 461.9: Biology; 804: Chemical Products Generally; 804.1: Organic Compounds

分页: 1763-1770

创建日期: 2014-08-05

卷: 5

摘要语言: English

收录号: 20143218018662

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-08-11

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Alanine aminotransferase, Anti-oxidant activities, Aspartate aminotransferase, Hepatoprotective effects, Intra-gastric administration, Physico-chemical characterization, Physicochemical property, Superoxide dismutases

标题: Physicochemical properties, antioxidant activities and protective effect against acute ethanol-induced hepatic injury in mice of foxtail millet (*Setaria Italica*) bran oil

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第一个可用: 2014-08-11

语言: 英文

Study on synthesis and matching degree of energy level of terbium complexes using o-fluoro-benzoic acid as ligand

作者: Tao, Dong-Liang 1 ; Zhang, Kun 2 ; Zhang, Hong 2 ; Cui, Yu-Min 1 ; Xu, Yi-Zhuang 3 ; Liu, Yu-Hai 3

1 College of Chemistry and Chemical Engineering, Fuyang Normal College, Fuyang 236041, China, Anhui Provincial Key Laboratory for Degradation and Monitoring of Pollution of the Environment, Fuyang 236041, China tdlpku@foxmail.com 2 College of Chemistry and Chemical Engineering, Fuyang Normal College, Fuyang 236041, China 3 College of Chemistry and Molecular Engineering, Peking University, Beijing 100871, China xyz@pku.edu.cn

出版物信息: Guang Pu Xue Yu Guang Pu Fen Xi/Spectroscopy and Spectral Analysis 34.4 (Jan 1, 2014): 994-998.

[ProQuest 文档链接](#)

摘要 (English): Tb(2-FBA)₃·2H₂O and Tb(2-FBA)₃phen were synthesized using o-fluoro-benzoic acid (2-FBA) as the first ligand, and 1, 10-phenanthroline (phen) as the second ligand. Elemental analysis and IR spectra were employed to characterize the molecular composition of the two kinds of lanthanide complexes. The UV absorption spectra with same concentration show that the second ligand phen of Tb(2-FBA)₃phen absorbs the portion of the UV light instead of the first ligand 2-FBA. Liquid fluorescence spectra with same concentration show that the fluorescence intensity of Tb(2-FBA)₃·2H₂O is higher than that of Tb(2-FBA)₃phen. The analytical results show that the energy level of 2-FBA matches the lowest excited state energy level of Tb³⁺ (⁵D₄) better than that of phen. The O-H oscillation of the crystal water in Tb(2-FBA)₃·2H₂O will greatly consume the absorbed energy by ligands, and cause the fluorescence intensity of Tb(2-FBA)₃·2H₂O significantly decline. The energy level of triplet state of the first ligand 2-FBA corresponding to the absorption peak 273 nm has poor matching degree with the ⁵D₄ energy level of Tb³⁺. In this case, the emission intensity of Tb(2-FBA)₃·2H₂O is still stronger than that of Tb(2-FBA)₃phen. It illustrates that the energy level of the triplet state of the first ligand 2-FBA corresponding to 252 nm has much better matching degree with the lowest excited state of ⁵D₄ energy level of Tb³⁺ than that of phen. It is the only way to compensate for energy loss by thermal vibration of water molecules and low energy transfer efficiency for poor matching degree between the energy level of corresponding to 273 nm of the first ligand 2-FBA and ⁵D₄ energy level of Tb³⁺. By combining UV absorption spectra with fluorescence spectra of lanthanide complexes to qualitatively analyze energy level of ligands, the contribution of different types of ligands to the fluorescence properties can be preliminarily understood.

DOI: [http://dx.doi.org/10.3964/j.issn.1000-0593\(2014\)04-0994-05](http://dx.doi.org/10.3964/j.issn.1000-0593(2014)04-0994-05)

ISSN: 10000593

主题: Ligands (主要); Benzoic acid; Chelation; Energy dissipation; Excited states; Fluorescence; Synthesis (chemical); Terbium

出版商: Science Press

出版日期: Jan 1, 2014

出版物名称: Guang Pu Xue Yu Guang Pu Fen Xi/Spectroscopy and Spectral Analysis

出版物类型: Journal

分类: 525.4: Energy Losses/Dissipation; 547.2: Rare Earth Metals; 741.1: Light and Optics; 801.4: Physical Chemistry; 802.2: Chemical Reactions; 804.1: Organic Compounds; 931.3: Atomic and Molecular Physics

分页: 994-998

创建日期: 2014-04-16

卷: 34

摘要语言: English

收录号: 20141617586119

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-04-21

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): 1 ,10-phenanthroline, Excited-state energy, Fluorescence intensities, Fluorescence properties, Matching degree, Molecular compositions, Terbium complex, UV absorption spectrum, Fluorescence property, Matching degree of energy level, o-fluoro-benzoic acid, Terbium complexes, UV absorption spectra

标题: Study on synthesis and matching degree of energy level of terbium complexes using o-fluoro-benzoic acid as ligand

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第一个可用: 2014-04-21

语言: 英文

Research on human movement with noninvasive tissue oximeter using near infrared spectroscopy

作者: Lin, Hong 1 ; Xi, Yu-Bao 2 ; Yu, Hui 3

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出版物信息: Guang Pu Xue Yu Guang Pu Fen Xi/Spectroscopy and Spectral Analysis 34.6 (Jan 1, 2014): 1538-1541.

[ProQuest 文档链接](#)

摘要 (English): The present paper discusses how to monitor and analyze the relative change in muscle oxygen content in quadriceps tissue, and measures and records the change in blood lactate acid concentration, blood volume and heart rate when eight players who are good at middle-distance races perform grade incremental intensity exercise on cycle ergometer by using noninvasive tissue oximeter with near infrared spectroscopy produced by China independently. The results show that muscle oxygen content has a close relationship($p < 0.01$) with exercise load, blood lactic acid, blood volume and heart rate? When determined muscle oxygen content and blood lactate acid concentration was determined for many times to the same person, the test proved regular falling and rising. There was no significant changes when analyzed each set of the data was analyzed through horizontal comparison. It verifies we can judge the subjects's endurable exercise intensity and the upward inflection point of blood lactic acid corresponding to the decreasing inflection point of blood lactate acid concentration & muscle oxygen content according to the muscle oxygen content change of skeletal muscle while exercising. This paper shows NIRS research status and present situation in sports field through investigation, and analyzes the main trouble and research tendency in the future. By understanding NIRS technology gradually, the authors can realize that the muscle oxygen content which measured by noninvasive tissue oximeter using near infrared spectroscopy produced by China independently is a sensitive, nondestructive, up-to-date and reliable index, it has irreplaceable advantages when compared with traditional invasive, excised and fussy test methods.

DOI: [http://dx.doi.org/10.3964/j.issn.1000-0593\(2014\)06-1538-04](http://dx.doi.org/10.3964/j.issn.1000-0593(2014)06-1538-04)

ISSN: 10000593

主题: Tissue engineering (主要); Blood; Heart; Hemodynamics; Lactic acid; Muscle; Near infrared spectroscopy; Oximeters; Oxygen; Research; Testing

出版商: Science Press

出版日期: Jan 1, 2014

出版物名称: Guang Pu Xue Yu Guang Pu Fen Xi/Spectroscopy and Spectral Analysis

出版物类型: Journal

分类: 423.2: Test Methods; 461.1: Biomedical Engineering; 461.2: Biological Materials; 801: Chemistry; 804: Chemical Products Generally; 804.1: Organic Compounds; 901.3: Engineering Research; 943.3: Special Purpose Instruments

分页: 1538-1541

创建日期: 2014-06-23

卷: 34

摘要语言: English

收录号: 20142517852307

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-29

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Acid concentrations, Advantage, Current status, Exercise intensity, Human movements, Inflection points, Present situation, Tendency, Human movement research, Near-infrared spectroscopy

标题: Research on human movement with noninvasive tissue oximeter using near infrared spectroscopy

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第一个可用: 2014-06-29

语言: 英文

Measurements of CO₂ concentration at high temperature and pressure environments using tunable diode laser absorption spectroscopy

作者: Cai, Ting-Dong 1 ; Gao, Guang-Zhen 2 ; Wang, Min-Rui 2 ; Wang, Gui-Shi 3 ; Gao, Xiao-Ming 3

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出版物信息: Guang Pu Xue Yu Guang Pu Fen Xi/Spectroscopy and Spectral Analysis 34.7 (Jan 1, 2014): 1769-1773.

[ProQuest 文档链接](#)

摘要 (English): The present research was planned to develop a method for species concentration measurements under high temperature and pressure environments. The characteristics of CO₂ spectrum at high temperature and pressure were studied at first. Based on the research above, tunable diode-laser absorption of CO₂ near 2.0 μm incorporating fixed-wavelength modulation spectroscopy with second-harmonic detection was used to provide a method for sensitive and accurate measurements of gas temperature and CO₂ concentration at high temperature and pressure. Measurements were performed in a well-controlled high temperature and pressure static cell. The results show that the average error of the CO₂ concentration measurements at 5 atm, 500 K and 10 atm, 1000 K is 4.49%. All measurements show the accuracy and potential utility of the method for high temperature and pressure diagnostics.

DOI: [http://dx.doi.org/10.3964/j.issn.1000-0593\(2014\)07-1769-05](http://dx.doi.org/10.3964/j.issn.1000-0593(2014)07-1769-05)

ISSN: 10000593

主题: Carbon dioxide (主要); Modulation; Molecular spectroscopy; Semiconductor lasers

出版商: Science Press

出版日期: Jan 1, 2014

出版物名称: Guang Pu Xue Yu Guang Pu Fen Xi/Spectroscopy and Spectral Analysis

出版物类型: Journal

分类: 714.2: Semiconductor Devices and Integrated Circuits; 716: Electronic Equipment, Radar, Radio and Television; 717: Electro-Optical Communication; 718: Telephone and Other Line Communications; 741.3: Optical Devices and Systems; 804.2: Inorganic Compounds

分页: 1769-1773

创建日期: 2014-07-16

卷: 34

摘要语言: English

收录号: 20142917947126

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-23

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Concentration Measurement, High temperature and pressure, Modulation spectroscopy, Second harmonic detection, Species concentration, Tunable diode laser absorption spectroscopy, Tunable diode lasers, Wavelength modulation spectroscopy, Tunable diode laser absorption spectroscopy (TDLAS)

标题: Measurements of CO₂ concentration at high temperature and pressure environments using tunable diode laser absorption spectroscopy

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第一个可用: 2014-07-23

语言: 英文

Systematic study of finite-difference frequency-domain method for spontaneous emission in a two-dimensional environment

作者: Qi, Jian-Nan 1 ; Huang, Zhi-Xiang 1 ; Wang, Han-Lin 1 ; Wu, Xian-Liang 2 ; Chu, Jing-Yang 1 ; Zhou, Li 1

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出版物信息: Guangzi Xuebao/Acta Photonica Sinica 43.1 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): The improvement of the efficiency of spontaneous emission will give great help to the research and manufacture of optoelectronic devices such as single photon resource. The local density of electromagnetic states was calculated which is represented by the electric dyadic Green's function through the finite-difference frequency-domain method, the local density of states and the spontaneous emission rate in different metal materials, structures and wavelengths were analyzed, and the intrinsic physical mechanism was explored. The results show that the spontaneous emission rate of atoms can be greatly enhanced when surface plasmon polariton couple to the emitter, and different structure and the refractive indices of materials have different improvement of spontaneous emission rate. This research can provide important reference for the manufacture and optimization of optoelectronic devices.

DOI: <http://dx.doi.org/10.3788/gzxb20144301.0125002>

ISSN: 10044213

主题: Spontaneous emission (主要); Electromagnetic wave polarization; Frequency domain analysis; Green's function; Manufacture; Mooring; Optoelectronic devices; Refractive index; Surface plasmon resonance

出版商: Chinese Optical Society

出版日期: Jan 1, 2014

出版物名称: Guangzi Xuebao/Acta Photonica Sinica

出版物类型: Journal

分类: 537.1: Heat Treatment Processes; 672: Naval Vessels; 711: Electromagnetic Waves; 741.1: Light and Optics; 741.3: Optical Devices and Systems; 921: Applied Mathematics; 921.3: Mathematical Transformations

创建日期: 2014-03-07

卷: 43

摘要语言: English

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文档状态: New

文档类型: Article

更新: 2014-03-12

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Different structure, Electric dyadic Green's function, Finite-difference frequency-domain method, Frequency domains, Local density, Local density of state, Spontaneous emission rates, Surface plasmon polaritons, Finite-Difference Frequency-Domain (FDTD) method, Local density of electromagnetic states

标题: Systematic study of finite-difference frequency-domain method for spontaneous emission in a two-dimensional environment

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第一个可用: 2014-03-12

语言: 英文

Thin-film solar cell's characteristic with periodic structure based on FDFD method

作者: Wei, Yuan 1 ; Xiao, Feng 1 ; Wu, Bo 1 ; Huang, Zhi-Xiang 1 ; Wu, Xian-Liang 2

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出版物信息: Guangzi Xuebao/Acta Photonica Sinica 43.1 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): Using the new inhomogeneous medium interface equivalent parameter scheme combined with the finite-difference frequency-domain method, numerical analysis on mechanism of the optical properties of the thin-film solar cell with periodic structure was presented. The plasmon resonance condition was used to study the reflection, the transmission, the absorption characteristics, and the distribution of total field. In the low frequency point, the enhancement of the total field is obvious at the interface of the medium layer and the Ag layer, and the absorption increases significantly. Furthermore, the relationship between the enhancement factor, the structure, the incident wavelength and the angle of incidence was discussed, and its intrinsic physical mechanism was also analyzed. The enhancement factor is very large at low frequency and increases with the enhancement of the incident angle. The results show that the enhancement factor can increase to 5.7. The proposed research work can provide a relevant theory and technical reference for the design and optimization of the actual organic thin-film solar cells.

DOI: <http://dx.doi.org/10.3788/gzxb20144301.0131001>

ISSN: 10044213

主题: Solar cells (主要); Frequency domain analysis; Periodic structures

出版商: Chinese Optical Society

出版日期: Jan 1, 2014

出版物名称: Guangzi Xuebao/Acta Photonica Sinica

出版物类型: Journal

分类: 615.2: Solar Power; 731.1: Control Systems; 933: Solid State Physics

创建日期: 2014-03-07

卷: 43

摘要语言: English

收录号: 20141017430458

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-12

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Absorption characteristics, Design and optimization, Finite-difference frequency-domain method, Frequency domains, Oblique incidence, Organic thin-film solar cells, Plasma effects, Thin-film solar cells, Finite-Difference Frequency-Domain (FDFD), Plasma effect, Thin-film solar cell

标题: Thin-film solar cell's characteristic with periodic structure based on FDFD method

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第一个可用: 2014-03-12

语言: 英文

SINR-balancing based cooperative spectrum sharing scheme for MIMO cognitive radio systems

作者: Zhao, Qingping 1 ; Li, Suwen 1 ; Chen, Debao 1

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出版物信息: High Technology Letters 20.2 (Jan 1, 2014): 195-200.

[ProQuest 文档链接](#)

摘要 (English): In order to improve the system capacity of the primary user (PU) and secondary user (SU) of multiple-input-multiple-output (MIMO) cognitive radio (CR) system, a signal to interference plus noise ratio balancing (SINR-balancing) based cooperative spectrum sharing (CSS) scheme is proposed, in which PU leases a fraction of its transmission time to SU in exchange for the SU relaying the PU's data cooperatively. The SINR-balancing based corresponding beamforming vectors are designed and time-division is also optimized for the proposed scheme. Simulation results show that compared to conventional opportunistic spectrum sharing (OSS) scheme, the proposed CSS scheme can effectively enhance the system performance of both PU and SU and provide an effective cooperation mechanism for PU and SU to determine whether to request cooperation.
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DOI: <http://dx.doi.org/10.3772/j.issn.1006-6748.2014.02.013>

ISSN: 10066748

主题: Signal interference (主要); Balancing; Beamforming; Cognitive radio; MIMO systems; Radio systems; Spurious signal noise; Telecommunication repeaters

出版商: Inst. of Scientific and Technical Information of China

出版日期: Jan 1, 2014

出版物名称: High Technology Letters

出版物类型: Journal

分类: 601: Mechanical Design; 713: Electronic Circuits; 716: Electronic Equipment, Radar, Radio and Television; 718.1: Telephone Systems and Equipment; 731: Automatic Control Principles and Applications; 732: Control Devices; 961: Systems Science

分页: 195-200

创建日期: 2014-07-16

卷: 20

摘要语言: English

收录号: 20142917947115

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-23

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Cooperation mechanism, Cooperative relay, Cooperative spectrum sharing, Multipleinput-multiple-output (MIMO) cognitive radios, Opportunistic spectrum sharing, Signal to interference plus noise ratio, System Capacity, Transmission time, Balance, Cognitive radio(CR), Multiple-input-multiple-output (MIMO)

标题: SINR-balancing based cooperative spectrum sharing scheme for MIMO cognitive radio systems

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第一个可用: 2014-07-23

语言: 英文

Compressive sensing for fast analysis of wide-angle monostatic scattering problems

作者: Chen, Ming Sheng 1 ; Liu, Fa Lin 2 ; Du, Hong Mei 3 ; Wu, Xian Liang 3

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出版物信息: IEEE Antennas and Wireless Propagation Letters 10 (Jan 1, 2014): 1243-1246.

[ProQuest 文档链接](#)

摘要 (English): The method of moments (MOM) is used in conjugation with the compressive sensing (CS) to efficiently analyze the electromagnetic scattering problems over a wide incident angle. A new incident source is formed based on CS theory, in which much information from different incident angle is included. By solving the integral equations under this new incident source, one can obtain the measurements of the induced currents without calculating the problems with a finer angle increment. Finally, the orthogonal matching pursuit technique (OMP) is used to recover the real induced currents. Numerical simulations for differently shaped objects are presented to validate the effectiveness of the proposed method.

DOI: <http://dx.doi.org/10.1109/LAWP.2011.2174190>

ISSN: 15361225

主题: Compressed sensing (主要); Electromagnetic wave scattering; Integral equations; Method of moments; Numerical methods; Signal reconstruction

出版商: Institute of Electrical and Electronics Engineers Inc.

出版日期: Jan 1, 2014

出版物名称: IEEE Antennas and Wireless Propagation Letters

出版物类型: Journal

分类: 711: Electromagnetic Waves; 716.1: Information and Communication Theory; 921: Applied Mathematics

分页: 1243-1246

创建日期: 2014-12-17

卷: 10

摘要语言: English

收录号: 20145100328304

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-12-21

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Compressive sensing, Electromagnetic scattering problem, Fast analysis, Incident angles, Measurements of, Method of moments (MOM), Monostatic scattering, Orthogonal matching pursuit, Wide-angle monostatic scattering

标题: Compressive sensing for fast analysis of wide-angle monostatic scattering problems

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第一个可用: 2014-12-21

语言: 英文

Design improvements and dynamic characterization on fluidic elastomer actuators for a soft robotic snake

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出版物信息: IEEE Conference on Technologies for Practical Robot Applications, TePRA (Jan 1, 2014)

[ProQuest 文档链接](#)

摘要 (English): This paper addresses the design and dynamic analysis of a new generation of fluidic elastomer actuators (FEAs) that offer bidirectional bending developed as motion segments of a pressure-operated soft robotic snake. Our prior work on FEAs has identified a number of limitations, namely a high center of gravity, narrow base, slow dynamics, and a small range of pressure inputs. We developed two versions of FEAs based on an improved design concept with different geometric parameters and characterized their dynamic response under a custom visual tracking system. Compared with the previous actuators, the FEAs developed in this work offer robust operation, safety at larger input pressure values, faster response, lower center of gravity and a flat bottom for better compatibility for snake-like undulatory locomotion. ©2014 IEEE.

DOI: <http://dx.doi.org/10.1109/TePRA.2014.6869154>

ISSN: 23250526

主题: Actuators (主要); Dynamic response; Elastomers; Plastics; Robot applications; Robotics

出版商: IEEE Computer Society

出版日期: Jan 1, 2014

出版物名称: IEEE Conference on Technologies for Practical Robot Applications, TePRA

出版物类型: Conference Papers & Proceedings

分类: 408.1: Structural Design, General; 632: Hydraulics, Pneumatics and Related Equipment; 731.5: Robotics; 731.6: Robot Applications; 817.1: Plastics Products; 818.2: Elastomers

创建日期: 2014-08-31

摘要语言: English

收录号: 20143518109539

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文档状态: New

文档类型: Conference Paper

更新: 2014-09-07

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Center of gravity, Design and dynamics, Design improvements, Dynamic characterization, Optimal design, Soft robotic snake, Undulatory locomotion, Visual tracking systems, Fluidic elastomer actuator

标题: Design improvements and dynamic characterization on fluidic elastomer actuators for a soft robotic snake

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第一个可用: 2014-09-07

语言: 英文

Differential expression analysis on RNA-seq count data based on penalized matrix decomposition

作者: Liu, Jin-Xing 1 ; Gao, Ying-Lian 2 ; Xu, Yong 3 ; Zheng, Chun-Hou 4 ; You, Jane 5

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出版物信息: IEEE Transactions on Nanobioscience 13.1 (Jan 1, 2014): 12-18.

[ProQuest 文档链接](#)

摘要 (English): With the development of deep sequencing, vast amounts of RNA-Seq data have been generated. It is crucial how to extract and interpret the meaningful information contained in deep sequencing data. In this paper, based on penalized matrix decomposition (PMD), a novel method, named PMDSeq, was proposed to analyze RNA-seq count data. Firstly, to obtain the differential expression matrix, the matrix of RNA-seq count data was normalized. Secondly, the differential expression matrix was decomposed into three factor matrices. By imposing appropriate constraint on factor matrices, the PMDSeq method can highlight the differentially expressed genes. Thirdly, the proposed method can identify the differentially expressed genes based on the scaled eigensamples. Finally, we used gene ontology tools to check these differentially expressed genes. The experimental results on simulation and three real RNA-seq count data sets demonstrated the effectiveness of our method. ©2002-2011 IEEE.

DOI: <http://dx.doi.org/10.1109/TNB.2013.2296978>

ISSN: 15361241

主题: Matrix algebra (主要); Gene expression; RNA

出版商: Institute of Electrical and Electronics Engineers Inc.

出版日期: Jan 1, 2014

出版物名称: IEEE Transactions on Nanobioscience

出版物类型: Journal

分类: 461: Bioengineering; 921.1: Algebra

分页: 12-18

创建日期: 2014-03-24

卷: 13

摘要语言: English

收录号: 20141217495130

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-26

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Deep sequencing, Differential expressions, Gene selection, Matrix decomposition, RNA-Seq datum, differential expression analysis, RNA-seq data

标题: Differential expression analysis on RNA-seq count data based on penalized matrix decomposition

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第一个可用: 2014-03-26

语言: 英文

Plasma fusion at 10 MK with extremely heated 3 He ions

作者: Zhang, Tian Xi 1 ; Ye, Min You 2

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出版物信息: IEEE Transactions on Plasma Science 42.5 (Jan 1, 2014): 1430-1437.

[ProQuest 文档链接](#)

摘要 (English): A new mechanism for plasma fusion at 10 million degree kelvin (MK) with extremely heated (100 MK or hotter) ^3He ions was developed. This new mechanism involves a two-stage heating process when an electric current is driven through a multiion plasma with ^3He ions. To realize thermonuclear fusion, plasmas must be heated to 100 MK and higher. The ohmic heating process is the simplest, which enables an electric current to heat plasma up to 10 MK. Values above this upper limit the resistivity in the plasma is too low for the electric current to significantly dissipate. The author's previously well-developed theory for solar ^3He -rich events has indicated that current-driven electrostatic H (or proton) cyclotron waves can be easily excited at frequency levels approximately twice the ^3He -cyclotron frequency, thus very efficient in heating ^3He via the second harmonic resonance. The ^3He temperature can be increased by a factor of 10-100 within only hundreds of the H gyro-period. This preferential heating of ^3He can be applied as the second-stage heating of an ohmically preheated laboratory or tokamak plasma for fusion with ^3He . As the electric current is driven through, the plasma is gradually heated up to 10 MK due to the ohmic dissipation and saturates at this level of temperature because of low loss rate. When the electric current is continuously driven up to a critical point, the electrostatic H-cyclotron waves are excited, which can further heat ^3He to 100 MK and higher, at which the nuclear fusion between the extremely hot ^3He and the other relative cold deuterium (D) ions can occur. In a tokamak (e.g., ITER), if the plasma is composed of e, H, D, and ^3He with abundances $n_{\text{H}} > n_{\text{D}} \gg n_{\text{He}}$ and when ^3He is preferentially heated to 100 MK and higher by the current-driven electrostatic H-cyclotron waves, the plasma

dominant species of ions (H and D) are still around 10 MK. This new mechanism for plasma fusion at 10 MK with extremely heated ^3He ions can also greatly reduce the difficulty in controlling and confining the plasma as well as avoid any explosions of the fusion device when extremely hot ^3He ions fuse with relative cold D ions.
©2013 IEEE.

DOI: <http://dx.doi.org/10.1109/TPS.2014.2313556>

ISSN: 00933813

主题: Magnetoplasma (主要); Cyclotron radiation; Electric currents; Electron beams; Electrostatics; Heating; Ions; Plasma heating; Plasma waves; Tokamak devices

出版商: Institute of Electrical and Electronics Engineers Inc.

出版日期: Jan 1, 2014

出版物名称: IEEE Transactions on Plasma Science

出版物类型: Journal

分类: 643.1: Space Heating; 701.1: Electricity, Basic Concepts and Phenomena; 711: Electromagnetic Waves; 932: High Energy Physics; Nuclear Physics; Plasma Physics; 932.3: Plasma Physics

分页: 1430-1437

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摘要语言: English

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数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-01

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Cyclotron frequency, Cyclotron waves, Dominant species, Fusion power, Ohmic dissipation, Preferential Heating, Second harmonic resonance, Thermonuclear fusion, Fusion power generation

标题: Plasma fusion at 10 MK with extremely heated ^3He ions

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第一个可用: 2014-06-01

语言: 英文

Sparse channel estimation of pulse-shaping multiple-input-multiple-output orthogonal frequency division multiplexing systems with an approximate gradient $l_2 - l_0$ reconstruction algorithm

作者: Ye, Xinrong 1 ; Zhu, Wei-Ping 2

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出版物信息: IET Communications 8.7 (Jan 1, 2014): 1124-1131.

[ProQuest 文档链接](#)

摘要 (English): Most of the existing compressed channel-sensing methods for multiple-input-multiple-output orthogonal frequency division multiplexing (MIMO-OFDM) systems did not take into account the pulse-shaping filter in the transmitter and matched filter in the receiver. However, these two filters are commonly used in digital communication systems. The compressed channel-sensing problem of pulse-shaping MIMO-OFDM systems is first formulated. A new signal-reconstruction algorithm in the compressed sensing framework is then proposed. The algorithm is based on minimising a smoothed l_0 -norm regularised least-square (LS) ($l_2 - l_0$) objective function, and the unconstrained optimisation involved is performed by an approximate gradient method. Further, the proposed $l_2 - l_0$ algorithm is applied to reconstruct the channel impulse response. A number of computer simulation-based experiments are conducted, showing a better reconstruction accuracy of the $l_2 - l_0$ algorithm as compared with the smoothed l_0 -norm (l_0) algorithm. The proposed channel estimation approach can save nearly 25% pilot signals to maintain the same mean square error and bit error rate performances as given by the conventional LS method. ©The Institution of Engineering and Technology 2014.

DOI: <http://dx.doi.org/10.1049/iet-com.2013.0571>

ISSN: 17518628

主题: Pulse shaping (主要); Algorithms; Channel estimation; Compressed sensing; Computer simulation; Digital communication systems; Gain control; Gradient methods; MIMO systems; Multiplexing equipment; Optimization; Orthogonal frequency division multiplexing

出版商: Institution of Engineering and Technology

出版日期: Jan 1, 2014

出版物名称: IET Communications

出版物类型: Journal

分类: 713.4: Pulse Circuits; 716: Electronic Equipment, Radar, Radio and Television; 716.1: Information and Communication Theory; 717: Electro-Optical Communication; 718: Telephone and Other Line Communications; 723: Computer Software, Data Handling and Applications; 723.5: Computer Applications; 731.3: Specific Variables Control; 921: Applied Mathematics; 961: Systems Science

分页: 1124-1131

创建日期: 2014-05-07

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摘要语言: English

收录号: 20141917697869

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-05-12

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Bit error rate (BER) performance, Channel impulse response, Estimation approaches, Multiple input multiple output (MIMO), Orthogonal frequency division multiplexing systems, Reconstruction accuracy, Reconstruction algorithms, Sparse channel estimations

标题: Sparse channel estimation of pulse-shaping multipleinput-multiple-output orthogonal frequency division multiplexing systems with an approximate gradient $l_2 - S l_0$ reconstruction algorithm

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第一个可用: 2014-05-12

语言: 英文

Flavonoid concentrations and bioactivity of flavonoid extracts from 19 species of ferns from China

作者: Xia, Xian 1 ; Cao, Jianguo 1 ; Zheng, Yunxia 1 ; Wang, Quanxi 1 ; Xiao, Jianbo 2

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出版物信息: Industrial Crops and Products 58 (Jan 1, 2014): 91-98.

[ProQuest 文档链接](#)

摘要 (English): Ferns are famous traditional medicinal plants and 300 fern species have been used as phytomedicines by Southwestern of China. However, there is little information on the phytochemicals and pharmacological characteristics of most fern species. The total flavonoid concentrations, antioxidant activity, anticancer activity, and acetylcholinesterase inhibition of extracts from 19 species of ferns were investigated. The total flavonoid concentrations ranged from 8.6 to 306.4. mg/g (w/w). The antioxidant activity including DPPH free radical scavenging, ABTS radical scavenging, and superoxide anion scavenging, reducing power and ferric reducing antioxidant potential (FRAP) of flavonoid extracts from these ferns showed a weak linear relationship with their total flavonoid concentrations. *Selaginella frondosa* with very low total flavonoid concentration (13.4. mg/g) showed highest inhibition against A549 cells and it is necessary to further investigate the anti-cancer compounds in *S. frondosa*. The extracts from *Davallia cylindrica* Ching and *Stenoloma*

chusanum Ching significantly inhibited AChE activity, which illustrated that it is worthy of attention to investigate flavonoids from *D. cylindrica* and *S. chusanum* as AChE inhibitors. ©2014 Elsevier B.V.

DOI: <http://dx.doi.org/10.1016/j.indcrop.2014.04.005>

ISSN: 09266690

主题: Plant extracts (主要); Antioxidants; Bioactivity; Flavonoids; Oxygen

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Industrial Crops and Products

出版物类型: Journal

分类: 461.6: Medicine; 461.9: Biology; 804: Chemical Products Generally; 804.1: Organic Compounds

分页: 91-98

创建日期: 2014-05-08

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摘要语言: English

收录号: 20141917700858

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文档状态: New

文档类型: Article

更新: 2014-05-12

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Acetylcholinesterase inhibition, Anti-oxidant activities, Anticancer, Anticancer activities, Antioxidant potential, Ferns, Linear relationships, Traditional medicinal plants, Antioxidant

标题: Flavonoid concentrations and bioactivity of flavonoid extracts from 19 species of ferns from China

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第一个可用: 2014-05-12

语言: 英文

Analysis on influential factors of loose coal thermal conductivity test accuracy

作者: Guan, Weijuan 1 ; Chen, Qinghua 2 ; Xu, Manman 2 ; Zhang, Guoshu 3 ; Deng, Ming 4

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Anhui Province 232001, China Ahhnds@163.com 2 Faculty of Mechanical Engineering, Anhui University of Science and Technology, No. 168 Shungeng road, Huainan City, Anhui Province 232001, China Qhchen@aust.edu.cn ; 1291618886@qq.com 3 Faculty of Energy and Safety, Anhui University of Science and Technology, No. 168 Shungeng road, Huainan City, Anhui Province 232001, China Gszhang@aust.edu.cn 4 Faculty of Computer and Information, Fuyang Normal College, No. 100 Qinghe road, Fuyang City, Anhui Province 236041, China Mdeng76@163.com

出版物信息: International Journal of Mining and Mineral Engineering 5.2 (Jan 1, 2014): 106-116.

[ProQuest 文档链接](#)

摘要 (English): According to the status that the improved measurement system of loose coal thermal conductivity had more device error sources, which were not conducive to ensured test accuracy, the influence of system hardware error, coal sample self-oxidation exothermic, data processing error and other factors on test accuracy of the thermal conductivity were comprehensively analysed, and then corresponding control measures were raised. The experimental results showed that the system hardware error could be controlled effectively by selecting high-quality test component and controlling heating component size, and the coal self-oxidation exothermic impact can be negligible. The improved measurement system reduced simplified degree of the mathematical model, and solved it through numerical solution, through which can eliminated influence of data processing error effectively. Copyright ©2014 Inderscience Enterprises Ltd.

DOI: <http://dx.doi.org/10.1504/IJMME.2014.060195>

ISSN: 1754890X

主题: Thermal conductivity (主要); Coal; Data processing; Hardware; Mathematical models; Measurements

出版商: Inderscience Publishers

出版日期: Jan 1, 2014

出版物名称: International Journal of Mining and Mineral Engineering

出版物类型: Journal

分类: 524: Solid Fuels; 605: Small Tools and Hardware; 641.2: Heat Transfer; 723.2: Data Processing; 921: Applied Mathematics; 941: Acoustical and Optical Measuring Instruments; 942: Electric and Electronic Measuring Instruments; 943: Mechanical and Miscellaneous Measuring Instruments; 944: Moisture, Pressure and Temperature; Radiation Measuring Instruments

分页: 106-116

创建日期: 2014-06-18

卷: 5

摘要语言: English

收录号: 20142517828808

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-22

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Control measures, Influential factors, Measurement system, Numerical solution, Processing errors, System hardware, Test accuracy, Thermal conductivity tests, Loose coal, Verifying experiment

标题: Analysis on influential factors of loose coal thermal conductivity test accuracy

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第一个可用: 2014-06-22

语言: 英文

Simulation for lattice-valued doubly labeled transition systems

作者: Pan, Haiyu 1 ; Cao, Yongzhi 2 ; Zhang, Min 3 ; Chen, Yixiang 3

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出版物信息: International Journal of Approximate Reasoning 55.3 (Jan 1, 2014): 797-811.

[ProQuest 文档链接](#)

摘要 (English): During the last decades, a large amount of multi-valued transition systems, whose transitions or states are labeled with specific weights, have been proposed to analyze quantitative behaviors of reactive systems. To set up a unified framework to model and analyze systems with quantitative information, in this paper, we present an extension of doubly labeled transition systems in the framework of residuated lattices, which we will refer to as lattice-valued doubly labeled transition systems (LDLTs). Our model can be specialized to fuzzy automata over complete residuated lattices, fuzzy transition systems, and multi-valued Kripke structures. In contrast to the traditional yes/no approach to similarity, we then introduce lattice-valued similarity between LDLTs to measure the degree of closeness of two systems, which is a value from a residuated lattice. Further, we explore the properties of robustness and compositionality of the lattice-valued similarity. Finally, we extend the Hennessy-Milner logic to the residuate lattice-valued setting and show that the obtained logic is adequate and expressive with lattice-valued similarity. ©2014 Elsevier Inc.

DOI: <http://dx.doi.org/10.1016/j.ijar.2013.11.009>

ISSN: 0888613X

主题: Fuzzy systems (主要); Fuzzy rules; Model checking

出版商: Elsevier Inc.

出版日期: Jan 1, 2014

出版物名称: International Journal of Approximate Reasoning

出版物类型: Journal

分类: 723.1: Computer Programming; 731.1: Control Systems; 961: Systems Science

分页: 797-811

创建日期: 2014-03-03

卷: 55

摘要语言: English

收录号: 20140917404763

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-05

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Fuzzy automaton, Hennessy-Milner Logics, Residuated lattices, Simulation, Transition system, Fuzzy automata, Hennessy-Milner logic, Transition systems

标题: Simulation for lattice-valued doubly labeled transition systems

版权: Copyright 2014 Elsevier B.V., All rights reserved.

第一个可用: 2014-03-05

语言: 英文

Special object recognition based on sparse representation in multiclass fusion sample

作者: Zha, Chang-Jun 1 ; Wei, Sui 2 ; Yang, Hai-Rong 3 ; Ding, Da-Wei 2

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出版物信息: Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition) 44.3 (Jan 1, 2014): 822-827.

[ProQuest 文档链接](#)

摘要 (English): According to the characteristics of Wireless Sensor Network (WSN) and the profile detecting system, a data processing method based on WSN is proposed. In this method, first, the sample features are extracted by principal component analysis; then, the features of different samples were fused using accumulate mode. A mathematical model was given and on the basis of this model, a novel algorithm of special object

recognition based on sparse representation in multiclass fusion sample was proposed. This algorithm recognizes the special target according to distribution of the main non-zero coefficients under an over-complete dictionary. Numerical simulation and experimental results demonstrate the effectiveness of the proposed algorithm, the comprehensive performance is better than the traditional methods.

DOI: <http://dx.doi.org/10.13229/j.cnki.jdxbgxb201403039>

ISSN: 16715497

主题: Wireless sensor networks (主要); Algorithms; Data processing; Mathematical models; Object recognition; Principal component analysis; Unattended sensors

出版商: Editorial Board of Jilin University

出版日期: Jan 1, 2014

出版物名称: Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)

出版物类型: Journal

分类: 716: Electronic Equipment, Radar, Radio and Television; 723.2: Data Processing; 732: Control Devices; 732.2: Control Instrumentation; 921: Applied Mathematics; 922.2: Mathematical Statistics

分页: 822-827

创建日期: 2014-06-06

卷: 44

摘要语言: English

收录号: 20142317791853

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-08

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Comprehensive performance, Data processing methods, Detecting systems, Non-zero coefficients, Over-complete dictionaries, Profiling recognition, Sparse representation, Unattended ground sensors, Information processing, Unattended ground sensor, Wireless sensor network

标题: Special object recognition based on sparse representation in multiclass fusion sample

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第一个可用: 2014-06-08

语言: 英文

Synthesis of Co₃O₄ nanomaterials with different morphologies and their photocatalytic performances

作者: Pan, Lu 1 ; Li, Li 2 ; Tian, Dong 1 ; Chen, Li 2 ; Wang, Juan 2

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出版物信息: JOM 66.6 (Jan 1, 2014): 1035-1042.

[ProQuest 文档链接](#)

摘要 (English): Several facile and easily controlled approaches were used to successfully synthesize Co₃O₄ nanomaterials including nanorods, nanosheets, nanotubes, and nanoparticles. The as-prepared samples were characterized by thermogravimetric and differential thermal analysis, x-ray diffraction, transmission electron microscopy, scanning electron microscopy, and Brunauer-Emmett-Teller (BET) surface area measurement, respectively. The photocatalytic degradation properties for methyl orange in simulated waste water using the as-prepared Co₃O₄ samples were investigated with assistance of hydrogen peroxide under irradiation of visible light. The results revealed that the Co₃O₄ with different morphologies showed different photocatalytic properties for the degradation of methyl orange. Of the samples, Co₃O₄ nanotubes and nanosheets exhibited higher photocatalytic activity. The repeat performances of Co₃O₄ nanotubes and nanosheets were measured, respectively. The results verified that the Co₃O₄ nanotubes and nanosheets all exhibited excellent repeatability for the catalytic degradation of methyl orange. ©2014 The Minerals, Metals & Materials Society.

DOI: <http://dx.doi.org/10.1007/s11837-014-0983-2>

ISSN: 10474838

主题: Nanotubes (主要); Azo dyes; Differential thermal analysis; Morphology; Nanorods; Nanosheets; Nanostructured materials; Photocatalysis; Scanning electron microscopy; Synthesis (chemical); Transmission electron microscopy; X ray diffraction

出版商: Minerals, Metals and Materials Society

出版日期: Jan 1, 2014

出版物名称: JOM

出版物类型: Journal

分类: 741.1: Light and Optics; 741.3: Optical Devices and Systems; 761: Nanotechnology; 801: Chemistry; 802.2: Chemical Reactions; 803: Chemical Agents and Basic Industrial Chemicals; 933: Solid State Physics; 933.1.1: Crystal Lattice; 951: Materials Science

分页: 1035-1042

创建日期: 2014-07-24

卷: 66

摘要语言: English

收录号: 20143017980638

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-28

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Catalytic degradation, Degradation of methyl oranges, Photo catalytic degradation, Photocatalytic activities, Photocatalytic performance, Photocatalytic property, Surface area measurement, Transmission electron

标题: Synthesis of Co_3O_4 nanomaterials with different morphologies and their photocatalytic performances

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第一个可用: 2014-07-28

语言: 英文

Analyzing complexity of municipal solid waste stations using approximate entropy and spatial clustering

作者: Song, Jingwei 1 ; Liao, Ying 1 ; He, Jiaying 2 ; Yang, Jia 3 ; Xiang, Bo 1

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出版物信息: Journal of Applied Science and Engineering 17.2 (Jan 1, 2014): 185-192.

[ProQuest 文档链接](#)

摘要 (English): The generation of municipal solid waste (take MSW for short hereafter) is a deterministic process with chaotic behaviors, which is highly sensitive to initial conditions. In this paper, we propose the approximate entropy (ApEn) to measure the spatial distribution of the MSW stations. We also provide the k-means spatial clustering method to investigate the spatial heterogeneity and homogeneity. Results show that MSW stations have spatial correlations and they can be divided into separate groups by spatial clustering method for further study and prediction.

DOI: <http://dx.doi.org/10.6180/jase.2014.17.2.09>

ISSN: 15606686

主题: Entropy (主要); Data mining; Linear control systems; Municipal solid waste

出版商: Journal of Applied Science and Engineering

出版日期: Jan 1, 2014

出版物名称: Journal of Applied Science and Engineering

出版物类型: Journal

分类: 452: Sewage and Industrial Wastes Treatment; 641.1: Thermodynamics; 723.3: Database Systems; 961: Systems Science

分页: 185-192

创建日期: 2014-08-05

卷: 17

摘要语言: English

收录号: 20143218023812

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-08-11

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Approximate entropy, Deterministic process, Initial conditions, Non-linear dynamic systems, Solid waste generation, Spatial clustering, Spatial correlations, Spatial heterogeneity, Non-linear dynamic system, Solid waste planning

标题: Analyzing complexity of municipal solid waste stations using approximate entropy and spatial clustering

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第一个可用: 2014-08-11

语言: 英文

Improved master equation approach to quantum transport: From Born to self-consistent Born approximation

作者: Jin, Jinshuang 1 ; Li, Jun 2 ; Liu, Yu 3 ; Li, Xin-Qi 4 ; Yan, Yijing 5

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出版物信息: Journal of Chemical Physics 140.24 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): Beyond the second-order Born approximation, we propose an improved master equation approach to quantum transport under self-consistent Born approximation. The basic idea is to replace the free Green's function in the tunneling self-energy diagram by an effective reduced propagator under the Born approximation. This simple modification has remarkable consequences. It not only recovers the exact results for quantum transport through noninteracting systems under arbitrary voltages, but also predicts the challenging nonequilibrium Kondo effect. Compared to the nonequilibrium Green's function technique that formulates the calculation of specific correlation functions, the master equation approach contains richer dynamical information to allow more efficient studies for such as the shot noise and full counting statistics. ©2014 AIP Publishing LLC.

DOI: <http://dx.doi.org/10.1063/1.4884390>

ISSN: 00219606

主题: Quantum electronics (主要); Born approximation; Green's function

出版商: American Institute of Physics Inc.

出版日期: Jan 1, 2014

出版物名称: Journal of Chemical Physics

出版物类型: Journal

分类: 711: Electromagnetic Waves; 744: Lasers; 921: Applied Mathematics

创建日期: 2014-07-09

卷: 140

摘要语言: English

收录号: 20142817923922

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-13

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Correlation function, Full counting statistics, Master equations, Non-interacting system, Nonequilibrium Green's function technique, Quantum transport, Self-consistent Born approximation, Simple modifications

标题: Improved master equation approach to quantum transport: From Born to self-consistent Born approximation

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第一个可用: 2014-07-13

语言: 英文

Epicuticular wax's effect on fruit softening of blueberry

作者: Gao, Haiyan 1 ; Yang, Shuai 2 ; Chen, Hangjun 1 ; Chu, Wenjing 3 ; Mu, Honglei 1 ; Ge, Linmei 1

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出版物信息: Journal of Chinese Institute of Food Science and Technology 14.2 (Jan 1, 2014): 102-108.

[ProQuest 文档链接](#)

摘要 (English): In order to explore the effect of epicuticular wax on postharvest blueberry fruits, the structure of epicuticular wax and its effect on softening of postharvest fruits were investigated. The results showed that, blueberry fruits will accelerate senescence more easily without epicuticular wax. Epicuticular wax not only reduced the decay rate and weight loss rate, but also significantly decreased the activities of pectin methylesterase (PME), polygalacturonase (PG) and cellulose. Epicuticular wax was also found to delay the depolymerization of propectin and cellulose to inhibit the increase of water soluble pectin (WSP), and to maintain fruit firmness. From the above results, it could be concluded that epicuticular wax of blueberry fruits was closely related to softening.

ISSN: 10097848

主题: Fruits (主要); Cellulose; Decay (organic); Waterworks

出版商: Chinese Institute of Food Science and Technology

出版日期: Jan 1, 2014

出版物名称: Journal of Chinese Institute of Food Science and Technology

出版物类型: Journal

分类: 446: Waterworks; 811.2: Wood and Wood Products; 815.1.1: Organic Polymers; 821.4: Agricultural Products

分页: 102-108

创建日期: 2014-04-09

卷: 14

摘要语言: English

收录号: 20141517560299

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-04-13

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Blueberry, Epicuticular waxes, Fruit softening, Pectin methylesterase, Polygalacturonase, Softening, Water soluble pectins, Weight loss rates, Epicuticular wax

标题: Epicuticular wax's effect on fruit softening of blueberry

版权: Copyright 2014 Elsevier B.V., All rights reserved.

第一个可用: 2014-04-13

语言: 英文

Some s-numbers of embeddings in function spaces with polynomial weights

作者: Zhang, Shun 1 ; Fang, Gensun 2 ; Huang, Fanglun 3

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出版物信息: Journal of Complexity 30.4 (Jan 1, 2014): 514-532.

[ProQuest 文档链接](#)

摘要 (English): In this paper, we investigate the asymptotic behavior of the Gelfand, Kolmogorov and Weyl numbers of Sobolev embeddings in weighted function spaces of Besov and Triebel-Lizorkin type with polynomial weights. The exact estimates for the Gelfand and Kolmogorov numbers are obtained in the so-called non-limiting case and complement those previous results in the quasi-Banach setting. Also, the asymptotic order of the Weyl numbers is established by means of the basic Weyl estimates in the finite-dimensional spaces improved recently as well as flexible uses of the operator ideal technique. ©2013 Elsevier Inc. All rights reserved.

DOI: <http://dx.doi.org/10.1016/j.jco.2013.10.008>

ISSN: 0885064X

主题: Functional analysis (主要); Number theory

出版商: Academic Press Inc.

出版日期: Jan 1, 2014

出版物名称: Journal of Complexity

出版物类型: Journal

分类: 921: Applied Mathematics

分页: 514-532

创建日期: 2014-06-10

卷: 30

摘要语言: English

收录号: 20142417803614

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-15

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Embeddings, Gelfand numbers, Kolmogorov numbers, Weighted function space, Weyl numbers, Compact embeddings, Weighted function spaces

标题: Some s-numbers of embeddings in function spaces with polynomial weights

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第一个可用: 2014-06-15

语言: 英文

Cox risk model with variable premium rate and stochastic return on investment

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出版物信息: Journal of Computational and Applied Mathematics 256 (Jan 1, 2014): 52-64.

[ProQuest 文档链接](#)

摘要 (English): This paper studies the ruin probability for a Cox risk model with intensity depending on premiums and stochastic investment returns, and the model proposed in this paper allows the dependence between premiums and claims. When the surplus is invested in the bond market with constant interest force, coupled integral equations for the Gerber-Shiu expected discounted penalty function (GS function) are derived; together with the initial value and Laplace transformation of the GS function, we provide a numerical procedure for obtaining the GS function. When the surplus can be invested in risky asset driven by a drifted Brownian motion, we focus on finding a minimal upper bound of ruin probability and find that optimal piecewise constant policy yields the minimal upper bound. It turns out that the optimal piecewise constant policy is asymptotically optimal when initial surplus tends to infinity. ©2013 Elsevier B.V. All rights reserved.

DOI: <http://dx.doi.org/10.1016/j.cam.2013.07.016>

ISSN: 03770427

主题: Optimization (主要); Investments; Laplace transforms; Risk assessment; Stochastic models; Stochastic systems

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Journal of Computational and Applied Mathematics

出版物类型: Journal

分类: 911.2: Industrial Economics; 921.3: Mathematical Transformations; 921.5: Optimization Techniques; 922.1: Probability Theory; 961: Systems Science

分页: 52-64

创建日期: 2013-08-27

卷: 256

摘要语言: English

收录号: 20133516660870

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2013-09-02

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Asymptotically optimal, Coupled integral equations, Cox risk models, Expected discounted penalty function, Laplace transformations, Optimal investments, Premium rate, Stochastic investment return, Cox risk model, Optimal investment, Variable premium rate

标题: Cox risk model with variable premium rate and stochastic return on investment

版权: Copyright 2013 Elsevier B.V., All rights reserved.

第一个可用: 2013-09-02

语言: 英文

Graph-based non-negative tensor factorization for image classification

作者: Liu, Yanan 1 ; Wu, Di 2 ; Liu, Lulu 3 ; Luo, Bin 4

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出版物信息: Journal of Computational Information Systems 10.1 (Jan 1, 2014): 267-274.

[ProQuest 文档链接](#)

摘要 (English): This paper proposes an algorithm based on graph-based spectral theory and non-negative tensor factorization, called graph non-negative tensor factorization. By combining both advantages of non-negative tensor factorization algorithm and graph spectral theory, our algorithm can effectively maintain the intrinsic structure of the data in the manifold space. Moreover, our method fully uses the structural information of the data and their intrinsic geometry. Experimental results on the handwritten digital image database show that the proposed algorithm can effectively improve the accuracy of the image classification. Copyright ©2014 Binary Information Press.

DOI: <http://dx.doi.org/10.12733/jcis8805>

ISSN: 15539105

主题: Factorization (主要); Algorithms; Graph theory; Graphic methods; Image classification; Tensors

出版商: Binary Information Press

出版日期: Jan 1, 2014

出版物名称: Journal of Computational Information Systems

出版物类型: Journal

分类: 716: Electronic Equipment, Radar, Radio and Television; 902.1: Engineering Graphics; 921: Applied Mathematics

分页: 267-274

创建日期: 2014-01-30

卷: 10

摘要语言: English

收录号: 20140517248344

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-02-03

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Digital image database, Intrinsic geometry, Intrinsic structures, Manifold learning, Non negatives, Spectral theory, Structural information, Tensor factorization, Non-negative

标题: Graph-based non-negative tensor factorization for image classification

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第一个可用: 2014-02-03

语言: 英文

Fluorescence sensors for selective detection of Hg²⁺ ion using a water-soluble poly(vinyl alcohol) bearing rhodamine B moieties

作者: Geng, Tong-Mou 1 ; Wang, Yu 2 ; Huang, Rong-Yi 1

1 Anhui Key Laboratory of Functional Coordination Compounds, School of Chemistry and Chemical Engineering, Anqing Normal University, Anqing 246011, China gengtongmou@aqtc.edu.cn 2 School of Resource and Environmental Science, Anqing Normal University, Anqing 246011, China

出版物信息: Journal of Fluorescence 24.4 (Jan 1, 2014): 1207-1213.

[ProQuest 文档链接](#)

摘要 (English): The novel water-soluble poly(vinyl alcohol) with pendant rhodamine B moiety as colorimetric and fluorescence chemosensor for Hg²⁺ ions was prepared by grafting poly(vinyl alcohol) using rhodamine B hydrazide and hexamethylenediisocyanate as fluorescent dye and coupling agent, respectively. Because of their good water-solubility, the polymers binding rhodamine B can be used as chemosensors in aqueous media. With the addition of Hg²⁺ ions into the aqueous solution, visual color changes and fluorescence enhancements were detected. In addition, we also noticed that other metal ions such as Ag⁺, Cd²⁺, Co²⁺, Cu²⁺, K⁺, Mg²⁺, Ba²⁺, Fe²⁺, Ni²⁺, Pb²⁺, Cr³⁺, Fe³⁺ and Zn²⁺ cannot induce obvious changes to the fluorescence spectra of the polymer chemosensors. The combination of water solubility and positive fluorescence response as well as color change are hence particularly promising for the practical utility of the sensors. ©2014 Springer Science+Business Media New York.

DOI: <http://dx.doi.org/10.1007/s10895-014-1402-3>

ISSN: 10530509

主题: Polyvinyl alcohols (主要); Colorimetry; Copper; Coupling agents; Fluorescence; Lead; Metal ions; Physiology; Polymers; Sensors; Solubility

出版商: Springer New York LLC

出版日期: Jan 1, 2014

出版物名称: Journal of Fluorescence

出版物类型: Journal

分类: 461.9: Biology; 533: Ore Treatment and Metal Refining; 544.1: Copper; 546.1: Lead and Alloys; 741.1: Light and Optics; 801: Chemistry; 801.4: Physical Chemistry; 803: Chemical Agents and Basic Industrial Chemicals; 815.1: Polymeric Materials; 815.1.1: Organic Polymers; 941.4: Optical Variables Measurements

分页: 1207-1213

创建日期: 2014-07-17

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摘要语言: English

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文档状态: New

文档类型: Article

更新: 2014-07-23

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Fluorescent chemosensor, Mercury ion, Polymer chemosensors, Rhodamine B, Watersoluble polymers, Poly(vinyl alcohol), Sensing mercury ion, Water-soluble polymer

标题: Fluorescence sensors for selective detection of Hg²⁺ ion using a water-soluble poly(vinyl alcohol) bearing rhodamine B moieties

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第一个可用: 2014-07-23

语言: 英文

The 120Gbps VCSEL array based optical transmitter (ATx) development for the High-Luminosity LHC (HL-LHC) experiments

作者: Guo, D. 1 ; Liu, C. 2 ; Chen, J. 3 ; Chramowicz, J. 4 ; Deng, B. 5 ; Gong, D. 2 ; Hou, S. 6 ; Jin, G. 7 ; Kwan, S. 4 ; Liang, F. 7 ; Li, X. 8 ; Liu, G. 9 ; Liu, T. 2 ; Prosser, A. 4 ; Su, D.-S. 6 ; Teng, P.-K. 6 ; Xu, T. 10 ; Ye, J. 2 ; Zhao, X. 2 ; Xiang, A.C. 2 ; Liang, H. 7

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出版物信息: Journal of Instrumentation 9.2 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): The integration of a Vertical Cavity Surface-Emitting Laser (VCSEL) array and a driving Application-Specific Integrated Circuit (ASIC) in a custom optical array transmitter module (ATx) for operation in the detector front-end is constructed, assembled and tested. The ATx provides 12 parallel channels with each channel operating at 10 Gbps. The optical transmitter eye diagram passes the eye mask and the bit-error rate (BER) less than 10^{-12} transmission is achieved at 10 Gbps/ch. The overall insertion loss including the radiation induced attenuation is sufficiently low to meet the proposed link budget requirement. © 2014 IOP Publishing Ltd and Sissa Medialab srl.

DOI: <http://dx.doi.org/10.1088/1748-0221/9/02/C02007>

主题: Opacity (主要); Application specific integrated circuits; Detectors; Lasers; Surface emitting lasers

出版商: Institute of Physics Publishing

出版日期: Jan 1, 2014

出版物名称: Journal of Instrumentation

出版物类型: Journal

分类: 714.2: Semiconductor Devices and Integrated Circuits; 741.1: Light and Optics; 744.1: Lasers, General; 914: Safety Engineering

创建日期: 2014-03-07

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摘要语言: English

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数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-12

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Cavity surface-emitting lasers, Detector readout, Optical detectors, Optical transmitters, Parallel channel, Radiation-Hard, Radiation-induced attenuation, Transmitter module, Front-end electronics for detector readout, Optical detector readout concepts, Radiation-hard electronics

标题: The 120Gbps VCSEL array based optical transmitter (ATx) development for the High-Luminosity LHC (HL-LHC) experiments

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第一个可用: 2014-03-12

语言: 英文

A 54-mW 8-Gbit/s VCSEL driver in a 65-nm CMOS technology

作者: Liang, F. 1 ; Lu, W. 2 ; Chen, J. 3 ; Deng, B. 4 ; Gong, D. 3 ; Guo, D. 1 ; Jin, G. 5 ; Li, X. 6 ; Liang, H. 5 ; Liu, C. 3 ; Liu, G. 2 ; Wang, Z. 2 ; Xiang, A. 3 ; Xu, T. 7 ; Ye, J. 3 ; Liu, T. 3

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出版物信息: Journal of Instrumentation 9.1 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): We report a VCSEL driver ASIC designed and fabricated in a commercial 65-nm CMOS process. At 8 Gbps, the eye diagram passes the eye mask test and the bit-error-rate is less than 10^{-12} at the 95% confidence level. The total power consumption (including VCSEL) is about 54 mW, less than 1/4 of our previous VCSEL driver ASIC in a silicon-on-sapphire CMOS technology. The VCSEL driver has been tested in a neutron beam with the maximum energy of 800 MeV and the cross section has been estimated to be less than $3.14 \times 10^{-11} \text{ cm}^2$. ©2014 IOP Publishing Ltd and Sissa Medialab srl.

DOI: <http://dx.doi.org/10.1088/1748-0221/9/01/C01021>

主题: CMOS integrated circuits (主要); VLSI circuits

出版商: Institute of Physics Publishing

出版日期: Jan 1, 2014

出版物名称: Journal of Instrumentation

出版物类型: Journal

分类: 714.2: Semiconductor Devices and Integrated Circuits

创建日期: 2014-02-04

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摘要语言: English

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数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Conference Paper

更新: 2014-02-10

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Analogue electronics, CMOS processes, CMOS technology, Confidence levels, Detector readout, Silicon-on-sapphire cmos, Total power consumption, VCSEL drivers, Analogue electronic circuits, Front-end electronics for detector readout

标题: A 54-mW 8-Gbit/s VCSEL driver in a 65-nm CMOS technology

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第一个可用: 2014-02-10

语言: 英文

Characterizations of regular ordered semigroups by generalized fuzzy ideals

作者: Tang, Jian 1 ; Xie, Xiangyun 2

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出版物信息: Journal of Intelligent and Fuzzy Systems 26.1 (Jan 1, 2014): 239-252.

[ProQuest 文档链接](#)

摘要 (English): Let S be an ordered semigroup. In this paper we first introduce the concepts of $(\epsilon, \epsilon\nu q_k)$ -fuzzy ideals, $(\epsilon, \epsilon\nu q_k)$ -fuzzy bi-ideals and $(\epsilon, \epsilon\nu q_k)$ -fuzzy generalized bi-ideals of an ordered semigroup S by the ordered fuzzy points of S , and investigate their related properties. Furthermore, characterizations of regular ordered semigroups by the properties of $(\epsilon, \epsilon\nu q_k)$ -fuzzy left ideals, $(\epsilon, \epsilon\nu q_k)$ -fuzzy right ideals and $(\epsilon, \epsilon\nu q_k)$ -fuzzy (generalized) bi-ideals are given. ©2014 IOS Press and the authors.

DOI: <http://dx.doi.org/10.3233/IFS-120731>

ISSN: 10641246

主题: Fuzzy sets (主要); Algebra

出版商: IOS Press

出版日期: Jan 1, 2014

出版物名称: Journal of Intelligent and Fuzzy Systems

出版物类型: Journal

分类: 921: Applied Mathematics; 921.1: Algebra

分页: 239-252

创建日期: 2013-12-26

卷: 26

摘要语言: English

收录号: 20135217139749

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2013-12-30

来源归属: Ei Compendex, © Publisher specific

标识符(关键字): $(\cap, \cap \vee q-k)$ -fuzzy (generalized) bi-ideal, $(\cap, \cap \vee q-k)$ -fuzzy left (right) ideal, Fuzzy ideals, Fuzzy point, Fuzzy subset, Ordered semigroups, Semi-group, Intra-regular ordered semigroup, Regular ordered semigroup, Strongly convex fuzzy subset

标题: Characterizations of regular ordered semigroups by generalized fuzzy ideals

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第一个可用: 2013-12-30

语言: 英文

Preparation of acridine orange-doped silica nanoparticles for pH measurement

作者: Liu, Jinshui 1 ; Zang, Lingjie 1 ; Wang, Yiru 1 ; Liu, Guoning 1

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出版物信息: Journal of Luminescence 147 (Jan 1, 2014): 155-158.

[ProQuest 文档链接](#)

摘要 (English): Acridine orange was first encapsulated into silica shell via a facile reverse microemulsion method to built core-shell fluorescent nanoparticles. The nanoparticles are all in spherical shape and have a narrow size distribution, and its application as a optical pH sensor has been demonstrated. This novel sensor is based on the pH-dependent fluorescence intensities of acridine orange in different pH value. The fluorescence intensity of acridine orange-doped silica nanoparticles was decreased by increasing pH value. Under optimum conditions, the changes of fluorescence intensity were proportional to the pH value in the range of 8.00-10.90. In addition, the sensor can be easily separated by centrifugation and adds no pollution to the environment compared to the free dyes. Furthermore, the effects of ionic strength and co-existing substances were proved to have little influence on the determination of pH. The sensor has been successfully applied to determine the pH of two artificial samples. Hence, the core-shell fluorescent nanoparticles show potential for practical application. ©2013 Elsevier B.V. All rights reserved.

DOI: <http://dx.doi.org/10.1016/j.jlumin.2013.11.015>

ISSN: 00222313

主题: pH sensors (主要); Citrus fruits; Fluorescence; Ionic strength; Microemulsions; Nanoparticles; pH; Sensors

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Journal of Luminescence

出版物类型: Journal

分类: 933: Solid State Physics; 821.4: Agricultural Products; 804: Chemical Products Generally; 801: Chemistry; 761: Nanotechnology; 741.1: Light and Optics; 708: Electric and Magnetic Materials

分页: 155-158

创建日期: 2013-12-06

卷: 147

摘要语言: English

收录号: 20134917056199

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2013-12-09

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Acridine orange, Artificial samples, Fluorescence intensities, Fluorescent nanoparticles, Narrow size distributions, Optimum conditions, Reverse microemulsions, Silica nanoparticles, PH sensor, Reverse microemulsion

标题: Preparation of acridine orange-doped silica nanoparticles for pH measurement

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第一个可用: 2013-12-09

语言: 英文

Ab-initio calculations of Judd-Ofelt intensity parameters for transitions between crystal-field levels

作者: Wen, Jun 1 ; Reid, Michael F. 2 ; Ning, Lixin 3 ; Zhang, Jie 4 ; Zhang, Yongfan 5 ; Duan, Chang-Kui 6 ; Yin, Min 6

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出版物信息: Journal of Luminescence 152 (Jan 1, 2014): 54-57.

[ProQuest 文档链接](#)

摘要 (English): Wavefunction-based ab-initio calculations of the electric-dipole moments of $4f^N-4f^N$ transitions of lanthanide ions are performed to extract the A_{λ} intensity parameters. The extraction method is an extension of our earlier calculations of crystal-field (CF) parameters for lanthanide ions in crystals. The CASSCF/RASSI-SO (Complete-Active-Space Self-Consistent-Field/Restricted-Active-Space State-Interaction Spin-Orbit) calculations have been carried out on the chosen model system of $\text{CaF}_2:\text{Ce}^{3+}$ with an interstitial fluoride ion (Fi) on z-axis (Ce^{3+} ion occupying the C_{4v} symmetry site). In consideration of the site symmetry and the coordination situation of Ce^{3+} ion at C_{4v} site in CaF_2 as well as the superposition model (SM), the calculated intensity parameters for Ce^{3+} ion can be classified into three categories, and detailed discussions are then given. ©2013 Elsevier B.V.

DOI: <http://dx.doi.org/10.1016/j.jlumin.2013.10.055>

ISSN: 00222313

主题: Ions (主要); Electric dipole moments; Rare earth elements

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Journal of Luminescence

出版物类型: Journal

分类: 547.2: Rare Earth Metals; 701.1: Electricity, Basic Concepts and Phenomena; 801: Chemistry

分页: 54-57

创建日期: 2014-05-06

卷: 152

摘要语言: English

收录号: 20141917693122

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-05-12

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Ab initio, Ab initio calculations, Complete active space self consistent fields, Crystal-field levels, Judd-Ofelt intensity parameters, Lanthanide ion, Superposition model, Transition intensity, Ab-initio, Electric dipole moment, Transition intensity parameters

标题: Ab-initio calculations of Judd-Ofelt intensity parameters for transitions between crystal-field levels

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第一个可用: 2014-05-12

语言: 英文

Enhanced upconversion in Ho³⁺-doped transparent glass ceramics containing BaYbF₅ nanocrystals

作者: Jiang, Sha 1 ; Guo, Hai 2 ; Wei, Xiantao 1 ; Duan, Changkui 1 ; Yin, Min 1

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出版物信息: Journal of Luminescence 152 (Jan 1, 2014): 195-198.

[ProQuest 文档链接](#)

摘要 (English): Novel Ho³⁺-doped transparent oxyfluoride SiO₂-Al₂O₃-Na₂CO₃-CaO-BaF₂-YbF₃ glass ceramics (GC) containing BaYbF₅ nanocrystals were fabricated via melt-quenching technique with subsequent heat treatment. The formation of crystalline fluoride phase was confirmed by X-ray diffraction (XRD) and transmission electron microscopy (TEM). Compared to precursor glasses, the greatly enhanced green emission (40-fold), new emission band at ultraviolet-blue region and stark splittings of emission in GC, indicate that Ho³⁺ enters into BaYbF₅ nanocrystals with low phonon energy. Besides, the origin of the previously unconfirmed emission band at 440-460 nm is clearly identified by measuring spectra from thermally coupled luminescent levels at various temperatures. The outstanding upconversion properties of Ho³⁺ in GC may present potential application in all-solid-state upconversion lasers operating in the visible and ultraviolet range. ©2013 Elsevier B.V.

DOI: <http://dx.doi.org/10.1016/j.jlumin.2013.11.030>

ISSN: 00222313

主题: Glass ceramics (主要); Nanocrystals; Transmission electron microscopy; X ray diffraction

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Journal of Luminescence

出版物类型: Journal

分类: 741.3: Optical Devices and Systems; 761: Nanotechnology; 812.1: Ceramics; 931.3: Atomic and Molecular Physics

分页: 195-198

创建日期: 2014-05-06

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摘要语言: English

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数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-05-12

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Low phonon energies, Melt quenching techniques, Oxyfluoride glass ceramics, Transparent glass ceramics, Up-conversion, Upconversion properties, Visible and ultraviolet, Upconversion

标题: Enhanced upconversion in Ho³⁺-doped transparent glass ceramics containing BaYbF₅ nanocrystals

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第一个可用: 2014-05-12

语言: 英文

Polarized spectroscopic properties of Er³⁺:Ca₉Y(VO₄)₇ crystal

作者: Yuan, Feifei 1 ; Zhao, Wang 2 ; Sun, Shijia 3 ; Zhang, Lizhen 3 ; Huang, Yisheng 3 ; Lin, Zhoubin 3 ; Wang, Guofu 3

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出版物信息: Journal of Luminescence 154 (Jan 1, 2014): 241-245.

[ProQuest 文档链接](#)

摘要 (English): An Er³⁺-doped Ca₉Y(VO₄)₇ single crystal with dimensions of Ø27×30 mm³ was grown successfully by Czochralski method. Its spectroscopic properties were investigated in detail. The absorption spectra show weak polarization effect, the absorption cross-sections at 801 nm are 6.36×10⁻²¹ cm² and 9.24×10⁻²¹ cm² for σ- and π-polarization, respectively. The emission cross sections at 1533 nm are 9.43×10⁻²¹ cm² for σ-polarization and 13.46×10⁻²¹ cm² for π-polarization. The fluorescence lifetime of the ⁴I_{13/2} manifold is 3.84 ms. When the population inversion parameter β≥0.2, laser emission will be realized in the tuning range of 1575 to 1615 nm for σ-polarization. The results show that Er³⁺:Ca₉Y(VO₄)₇ crystal is a promising laser material for producing 1.5 μm laser. ©2014 Elsevier B.V. All rights reserved.

DOI: <http://dx.doi.org/10.1016/j.jlumin.2014.04.036>

ISSN: 00222313

主题: Calcium (主要); Crystal growth; Erbium; Polarization; Single crystals

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Journal of Luminescence

出版物类型: Journal

分类: 547.2: Rare Earth Metals; 549.2: Alkaline Earth Metals; 711.1: Electromagnetic Waves in Different Media; 933.1: Crystalline Solids; 933.1.2: Crystal Growth

分页: 241-245

创建日期: 2014-06-02

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摘要语言: English

收录号: 20142217776817

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-08

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Emission cross section, Fluorescence lifetimes, Laser crystals, Polarized spectroscopic properties, Population inversions, Spectral properties, Spectroscopic property, Weak polarization, Laser crystal

标题: Polarized spectroscopic properties of $\text{Er}^{3+}:\text{Ca}_9\text{Y}(\text{VO}_4)_7$ crystal

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第一个可用: 2014-06-08

语言: 英文

Low temperature electrical transport behavior of La_{0.7}Ba_{0.3}MnO₃ thin Films on LaAlO₃ substrates

作者: Li, Bing 1 ; Zhu, Hong 2 ; Liu, Qinzhuang 1 ; Liu, Zhongliang 1 ; Zhang, Yongxing 1

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出版物信息: Journal of Magnetism and Magnetic Materials 366 (Jan 1, 2014): 50-54.

[ProQuest 文档链接](#)

摘要 (English): The high-quality $\text{La}_{0.7}\text{Ba}_{0.3}\text{MnO}_3$ (LBMO) epitaxial films were deposited on (001) oriented LaAlO_3 (LAO) substrates by magnetron sputtering technique. The low temperature electrical transport behavior of the films was investigated in details. In the low temperature ferromagnetic metallic state, a common feature, i.e., the minimum of electrical resistivity, was found in both of the films post annealed in oxygen and argon atmosphere. By taking the unusual combination of factors including spin dependent Kondo-like scattering, electron-electron and electron-phonon interactions into account, the resistivity minimum can be fitted well. It was found that the spin dependent Kondo-like scattering plays an important role in both the films, indicating the intrinsic spin disorder in strongly correlated manganites. Furthermore, in a lower temperature interval 4-25 K, a stronger electron-electron interaction was observed in the Ar annealed films, which can be attributed to the enhanced disorder arising from oxygen vacancy. ©2014 Elsevier B.V.

DOI: <http://dx.doi.org/10.1016/j.jmmm.2014.04.074>

ISSN: 03048853

主题: Manganites (主要); Electron-electron interactions; Epitaxial films; Lanthanum alloys; Manganese oxide; Phase separation; Scattering; Temperature; Thin films

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Journal of Magnetism and Magnetic Materials

出版物类型: Journal

分类: 547.2: Rare Earth Metals; 641.1: Thermodynamics; 711: Electromagnetic Waves; 714.2: Semiconductor Devices and Integrated Circuits; 804: Chemical Products Generally; 804.2: Inorganic Compounds; 931.3: Atomic and Molecular Physics; 933: Solid State Physics

分页: 50-54

创建日期: 2014-05-26

卷: 366

摘要语言: English

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数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-01

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Argon atmospheres, Disorder, Electrical transport, Ferromagnetic metallic state, Low temperatures, Lower temperatures, Perovskite manganites, Resistivity minimum, Perovskite manganite, Thin film

标题: Low temperature electrical transport behavior of $\text{La}_{0.7}\text{Ba}_{0.3}\text{MnO}_3$ thin Films on LaAlO_3 substrates

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第一个可用: 2014-06-01

语言: 英文

The First-principles Study on the Occupation Behavior and the Ductility Mechanism of Zr in Ni-Ni₃Al System with Lattice Misfit

作者: Wu, Yuxi 1 ; Zhang, Wanglin 1 ; Guo, Jia 1 ; Hou, Jieshan 2 ; Li, Xiuyan 2 ; Huang, Renzhong 3 ; Ma, Xiufang 1 ; Zhang, Qianfeng 1

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出版物信息: Journal of Materials Science and Technology 30.5 (Jan 1, 2014): 517-522.

[ProQuest 文档链接](#)

摘要 (English): The influence of lattice misfit on the occupation behavior and the ductility effect of Zr in Ni-Ni₃Al alloys were explored. It is found in energy analysis that the preferable site of Zr between Ni sublattice and Al sublattice will change under different lattice misfit, however, the Zr prefers to segregate Ni phase rather than Ni₃Al phase in all lattice misfit range, which makes it impossible for Zr to go into Ni₃Al phase to occupy Al sublattice in Ni-Ni₃Al system. Bond order (BO) analysis shows that the localized ductility effect of Zr differs in different region, and the comparison between Zr-free and Zr-doped BO analysis successfully explain the mechanism of

the embrittlement of Ni-Ni₃Al alloys and the ductility effect of Zr. ©2014.

DOI: <http://dx.doi.org/10.1016/j.jmst.2014.03.018>

ISSN: 10050302

主题: Nickel (主要); Aluminum; Ductility; Embrittlement; Employment; Zirconium

出版商: Chinese Society of Metals

出版日期: Jan 1, 2014

出版物名称: Journal of Materials Science and Technology

出版物类型: Journal

分类: 421: Strength of Building Materials; Mechanical Properties; 541.1: Aluminum; 548.1: Nickel; 549.3: Others, incl. Bismuth, Boron, Cadmium, Cobalt, Mercury, Niobium, Selenium, Silicon, Tellurium; 912: Industrial Engineering and Management; 913: Production Planning and Control; Manufacturing; 951: Materials Science

分页: 517-522

创建日期: 2014-05-14

卷: 30

摘要语言: English

收录号: 20142017718243

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-05-19

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Al alloys, Al phase, Bond orders, Energy analysis, First-principles study, Lattice misfits, Occupation behavior, Sub-lattices, Lattice misfit

标题: The First-principles Study on the Occupation Behavior and the Ductility Mechanism of Zr in Ni-Ni₃Al System with Lattice Misfit

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第一个可用: 2014-05-19

语言: 英文

Effect of solution concentration on surface morphology and photocatalytic activity of ZnO thin films synthesized by hydrothermal methods

作者: Lv, Jianguo 1 ; Shang, Fengjiao 2 ; Pan, Guangcai 2 ; Wang, Feng 2 ; Zhou, Zhitao 2 ; Liu, Changlong 2 ; Gong, Wanbing 2 ; Zi, Zhenfa 2 ; Chen, Xiaoshuang 3 ; He, Gang 4 ; Zhang, Miao 4 ; Song, Xueping 4 ; Sun, Zhaoqi 4 ; Liu, Feng 5

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出版物信息: Journal of Materials Science: Materials in Electronics 25.2 (Jan 1, 2014): 882-887.

[ProQuest 文档链接](#)

摘要 (English): ZnO thin films were synthesized via hydrothermal method on silicon substrate at various solution concentrations. The thin films were characterized by X-ray diffraction, field-emission scanning electron microscope and UV-Vis spectrophotometer. The results show that the thin films are polycrystalline with wurtzite hexagonal structure. The T_c values of (101) surface of the thin film increase from 0.929 to 1.840 at first, and then decrease to 0.779 with increasing solution concentration. The preferential orientation along the (101) crystal surface can be controlled by changing the solution concentration. Solution concentration has a significant effect on surface morphology of the thin films. The optical band gap of the thin films decreases, when the solution concentration of zinc nitrate hexahydrate increases from 0.01 to 0.06 mol/L and then increases when the solution concentration of zinc nitrate hexahydrate further increases to 0.08 mol/L. Photocatalytic activity of the thin films on degradation of methyl orange under UV light irradiation was studied in detail. The ZnO thin film with many cracks prepared from 0.01 mol/L shows the higher photocatalytic activity but the tower-like ZnO thin film prepared from 0.08 mol/L reveals the lower photocatalytic activity. Therefore, the photocatalytic activity of the thin films are mainly relate to surface morphology and crystallographic orientation. ©2013 Springer Science+Business Media New York.

DOI: <http://dx.doi.org/10.1007/s10854-013-1660-x>

ISSN: 09574522

主题: Film preparation (主要); Azo dyes; Metallic films; Nitrates; Optical films; Photocatalysis; Scanning electron microscopy; Surface morphology; Thin films; X ray diffraction; Zinc; Zinc sulfide

出版商: Springer New York LLC

出版日期: Jan 1, 2014

出版物名称: Journal of Materials Science: Materials in Electronics

出版物类型: Journal

分类: 531: Metallurgy and Metallography; 539: Metals Corrosion and Protection; Metal Plating; 546.3: Zinc and Alloys; 712.1: Semiconducting Materials; 714.2: Semiconductor Devices and Integrated Circuits; 741.1: Light and Optics; 741.3: Optical Devices and Systems; 803: Chemical Agents and Basic Industrial Chemicals; 804.2: Inorganic Compounds; 931.3: Atomic and Molecular Physics; 951: Materials Science

分页: 882-887

创建日期: 2014-02-25

卷: 25

摘要语言: English

收录号: 20140917379011

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-04

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Crystallographic orientations, Degradation of methyl oranges, Field emission scanning electron microscopes, Hexagonal structures, Photocatalytic activities, Preferential orientation, Solution concentration, UV-Vis spectrophotometers

标题: Effect of solution concentration on surface morphology and photocatalytic activity of ZnO thin films synthesized by hydrothermal methods

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第一个可用: 2014-03-04

语言: 英文

Enhanced photocatalytic activity of Mg_{0.05}Zn_{0.95}O thin films prepared by sol-gel method through a cycle

作者: Zhou, Zhitao 1 ; Shang, Fengjiao 1 ; Pan, Guangcai 1 ; Wang, Feng 1 ; Liu, Changlong 2 ; Gong, Wanbing 1 ; Zi, Zhenfa 1 ; Wei, Yiyong 1 ; Lv, Jianguo 3 ; Chen, Xiaoshuang 4 ; He, Gang 5 ; Zhang, Miao 5 ; Song, Xueping 5 ; Sun, Zhaoqi 5

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出版物信息: Journal of Materials Science: Materials in Electronics 25.5 (Jan 1, 2014): 2053-2059.

[ProQuest 文档链接](#)

摘要 (English): $Mg_{0.05}Zn_{0.95}O$ thin films were prepared on silicon substrates by a sol-gel dip-coating technique. Microstructure, surface topography and optical properties of the thin films were characterized by X-ray diffraction, atom force microscopy, Fourier transform infrared spectrophotometer and fluorescence spectrometer. The results show that the thin film annealed at 700 °C has the largest average grain size and exhibits the best c-axis preferred orientation. As annealing temperature increases to 800 °C, the grain along c-axis has been suppressed. Roughness factor and average particle size increase with the increase of annealing temperature. The IR absorption peak appearing at about 416 cm^{-1} is assigned to hexagonal wurtzite ZnO. The thin film annealed at 700 °C has the maximum oxygen vacancy, which can be inferred from the green emission intensity. Photocatalytic results show that the thin film annealed at 700 °C exhibits remarkable photocatalytic activity, which may be attributed to the larger grain size, roughness factor and concentration of oxygen vacancy. Enhanced photocatalytic activity of $Mg_{0.05}Zn_{0.95}O$ thin films after a cycle may be attributed to the increase of surface oxygen vacancy and photocorrosion of amorphous MgO on the surface of thin film under UV irradiation. ©2014 Springer Science+Business Media New York.

DOI: <http://dx.doi.org/10.1007/s10854-014-1839-9>

ISSN: 09574522

主题: Film preparation (主要); Annealing; Grain size and shape; Oxygen vacancies; Photocatalysis; Sol-gel process; Thin films; X ray diffraction; Zinc; Zinc sulfide

出版商: Springer New York LLC

出版日期: Jan 1, 2014

出版物名称: Journal of Materials Science: Materials in Electronics

出版物类型: Journal

分类: 482: Mineralogy; 537.1: Heat Treatment Processes; 546.3: Zinc and Alloys; 712.1: Semiconducting Materials; 714.2: Semiconductor Devices and Integrated Circuits; 741.1: Light and Optics; 801.4: Physical Chemistry; 804.2: Inorganic Compounds; 813.1: Coating Techniques; 931.3: Atomic and Molecular Physics

分页: 2053-2059

创建日期: 2014-04-24

卷: 25

摘要语言: English

收录号: 20141717617127

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-04-27

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Annealing temperatures, Average particle size, Fluorescence spectrometers, Fourier transform infrared spectrophotometers, Photocatalytic activities, Preferred orientations, Sol gel dip coating, Surface oxygen vacancies

标题: Enhanced photocatalytic activity of $\text{Mg}_{0.05}\text{Zn}_{0.95}\text{O}$ thin films prepared by sol-gel method through a cycle

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第一个可用: 2014-04-27

语言: 英文

Effect of ethylene glycol monomethyl ether ratio in mixed solvent on surface morphology, wettability and photocatalytic properties of ZnO thin films

作者: Gong, Wanbing 1 ; Pan, Guangcai 2 ; Shang, Fengjiao 2 ; Wang, Feng 2 ; Zhou, Zhitao 2 ; Liu, Changlong 3 ; Zhao, Min 2 ; Zi, Zhenfa 2 ; Wei, Yiyong 2 ; Lv, Jianguo 4 ; Chen, Xiaoshuang 5 ; He, Gang 6 ; Zhang, Miao 6 ; Song, Xueping 6 ; Sun, Zhaoqi 6

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出版物信息: Journal of Materials Science: Materials in Electronics 25.7 (Jan 1, 2014): 2948-2956.

[ProQuest 文档链接](#)

摘要 (English): Zinc oxide (ZnO) thin films with different ethylene glycol monomethyl ether (EGME) ratio were prepared on Si substrates using a two-step process. The results show that they possess a polycrystalline hexagonal wurtzite crystal structure. The topography of the ZnO thin films evolves from nanoparticles to hexagonal nanorods with the decrease of EGME content. The photoluminescence spectra consist of a near-band-edge emission and two visible emissions. The optical band gap energy decreases first and then increases with the increase of EGME ratio in mixed solvent, the broadening of the optical band gap can be explained by Moss-Burstein effect. The wetting behavior of all the samples can switch from hydrophobicity to hydrophilicity through UV illumination. The degradation efficiency of the thin films increases with decreasing EGME content, photocatalytic reaction mechanism of the ZnO thin films is discussed in detail. ©2014 Springer Science+Business Media New York.

DOI: <http://dx.doi.org/10.1007/s10854-014-1965-4>

ISSN: 09574522

主题: Organic solvents (主要); Degradation; Ethers; Ethylene glycol; Metallic films; Nanorods; Optical band gaps; Optical films; Photoluminescence; Polyols; Thin films; Wetting; Zinc oxide; Zinc sulfide

出版商: Springer New York LLC

出版日期: Jan 1, 2014

出版物名称: Journal of Materials Science: Materials in Electronics

出版物类型: Journal

分类: 531: Metallurgy and Metallography; 539: Metals Corrosion and Protection; Metal Plating; 714.2: Semiconductor Devices and Integrated Circuits; 741.1: Light and Optics; 741.3: Optical Devices and Systems; 761: Nanotechnology; 802.2: Chemical Reactions; 802.3: Chemical Operations; 804.1: Organic Compounds; 804.2: Inorganic Compounds; 933: Solid State Physics

分页: 2948-2956

创建日期: 2014-06-24

卷: 25

摘要语言: English

收录号: 20142617861143

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-29

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Degradation efficiency, Hexagonal wurtzite, Moss-Burstein effect, Near band edge emissions, Optical band gap energy, Photocatalytic property, Photocatalytic reactions, Photoluminescence spectrum

标题: Effect of ethylene glycol monomethyl ether ratio in mixed solvent on surface morphology, wettability and photocatalytic properties of ZnO thin films

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第一个可用: 2014-06-29

语言: 英文

Highly efficient photocatalytic performance of graphene-Ag₃VO₄ composites

作者: Tao, Xiucheng 1 ; Hong, Qing 2 ; Xu, Tianzhi 3 ; Liao, Fan 3

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Institute of Functional Nano and Soft Materials (FUNSOM), Jiangsu Key Laboratory for Carbon-based Functional Materials and Devices, Soochow University, Suzhou 215123, China liaofan121@163.com

出版物信息: Journal of Materials Science: Materials in Electronics 25.8 (Jan 1, 2014): 3480-3485.

[ProQuest 文档链接](#)

摘要 (English): In the present paper, graphene- Ag_3VO_4 composites with broad-spectrum response were prepared by hydrothermal method, which performed high photocatalytic activity in decomposing Rhodamine B under visible light irradiation. The graphene content exhibited an obvious influence on the photocatalytic activity. Composite with 5 wt% graphene possessed the highest activity: the degradation rate reached about 92.3 %, which was nearly 1.5 times higher than that of the pure Ag_3VO_4 . The enhancement of the photocatalytic activity was attributed to the synergetic effect between graphene and Ag_3VO_4 particles. Here, graphene was served as an excellent electron acceptor and transporter, which markedly decreased the recombination efficiency of electron-hole pairs and accelerated the degradation process. ©2014 Springer Science+Business Media New York.

DOI: <http://dx.doi.org/10.1007/s10854-014-2042-8>

ISSN: 09574522

主题: Graphene (主要); Complexation; Degradation; Photocatalysis; Photodegradation; Silver

出版商: Springer New York LLC

出版日期: Jan 1, 2014

出版物名称: Journal of Materials Science: Materials in Electronics

出版物类型: Journal

分类: 547.1: Precious Metals; 761: Nanotechnology; 802.2: Chemical Reactions; 804: Chemical Products Generally

分页: 3480-3485

创建日期: 2014-07-20

卷: 25

摘要语言: English

收录号: 20142917956604

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-28

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Degradation process, Electron hole pairs, High photocatalytic activities, Hydrothermal methods, Photocatalytic activities, Photocatalytic performance, Recombination efficiency, Visible-light irradiation

标题: Highly efficient photocatalytic performance of graphene-Ag₃VO₄ composites

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第一个可用: 2014-07-28

语言: 英文

Annealing temperature dependence on the structural and optical properties of sputtering-grown high-k HfO₂ gate dielectrics

作者: Deng, B. 1 ; He, G. 2 ; Chen, X.S. 3 ; Chen, X.F. 1 ; Zhang, J.W. 1 ; Liu, M. 4 ; Lv, J.G. 5 ; Sun, Z.Q. 1

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出版物信息: Journal of Materials Science: Materials in Electronics 25.9 (Jan 1, 2014): 4163-4169.

[ProQuest 文档链接](#)

摘要 (English): High-k gate dielectric HfO₂ thin films have been deposited on Si and quartz substrates by radio frequency magnetron sputtering. The structural characteristics, surface morphology, and optical properties of the HfO₂/Si gate stacks at various post-annealing temperatures were examined by X-ray diffraction (XRD), atomic force microscopy (AFM), fourier transform infrared spectroscopy (FTIR), ultraviolet-visible spectroscopy (UV-Vis spectroscopy), and spectroscopic ellipsometry (SE). XRD measurement indicates that the 80 W-deposited HfO₂ films demonstrate a polycrystalline structure. AFM measurements illustrate that the root mean square of the HfO₂ thin films demonstrates an apparent increase with increasing the annealing temperature. Analysis from FTIR indicates that the Si-O-Si bonds vibration peak position shift toward lower wave numbers with increasing the annealing temperature. Combined with UV-Vis spectroscopy and SE measurements, it can be noted reduction in band gap with an increase in annealing temperature has been confirmed. Additionally, increase in refractive index (n) has been confirmed by SE. ©2014 Springer Science+Business Media New York.

DOI: <http://dx.doi.org/10.1007/s10854-014-2144-3>

ISSN: 09574522

主题: Hafnium oxides (主要); Annealing; Atomic force microscopy; Fourier transform infrared spectroscopy; Gate dielectrics; Quartz; Refractive index; Silicon; Spectroscopic ellipsometry; Thin films; Ultraviolet visible spectroscopy; X ray diffraction

出版商: Springer New York LLC

出版日期: Jan 1, 2014

出版物名称: Journal of Materials Science: Materials in Electronics

出版物类型: Journal

分类: 482.2: Minerals; 537.1: Heat Treatment Processes; 712.1.1: Single Element Semiconducting Materials; 714.2: Semiconductor Devices and Integrated Circuits; 741.1: Light and Optics; 741.3: Optical Devices and Systems; 801: Chemistry; 804: Chemical Products Generally; 931.3: Atomic and Molecular Physics; 941.4: Optical Variables Measurements

分页: 4163-4169

创建日期: 2014-08-18

卷: 25

摘要语言: English

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数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-08-24

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Annealing temperatures, High-k gate dielectrics, Polycrystalline structure, Post-annealing temperature, Radio frequency magnetron sputtering, Structural and optical properties, Structural characteristics, UV-vis spectroscopy

标题: Annealing temperature dependence on the structural and optical properties of sputtering-grown high-k HfO₂ gate dielectrics

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第一个可用: 2014-08-24

语言: 英文

Effect of solution concentration on surface morphology, chemical composition and photoresponse of CuO/Cu₂O composite thin films grown by hydrothermal synthesis

作者: Zhao, Min 1 ; Shang, Fengjiao 1 ; Song, Ying 1 ; Wang, Feng 1 ; Zhou, Zhitao 1 ; Lv, Jianguo 2 ; Zi, Zhenfa 1 ; Wei, Yiyong 1 ; Chen, Xiaoshuang 3 ; He, Gang 4 ; Zhang, Miao 4 ; Song, Xueping 4 ; Sun, Zhaoqi 4

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出版物信息: Journal of Materials Science: Materials in Electronics 25.11 (Jan 1, 2014): 4877-4882.

[ProQuest 文档链接](#)

摘要 (English): Crystal structure, surface morphology, surface chemical composition and photocurrent response curves of the thin films were investigated by X-ray diffraction, scanning electron microscopy, X-ray photoelectron spectroscopy and electrochemical workstation. The results show that the composite thin films are composed of CuO and Cu₂O phase. The relative content of copper (I) oxide on the composite thin films increases with the increase of solution concentration. Leaf-like CuO particles have been observed on the thin film grown in the 0.5 mol/L solution. Some regular octahedral and truncated octahedral Cu₂O particles have been observed on the surface of thin films grown in the 0.6 and 0.8 mol/L solution, respectively. The best photocurrent response and the fastest growth and decay have been observed in the thin film grown in 0.6 mol/L solution.

DOI: <http://dx.doi.org/10.1007/s10854-014-2247-x>

ISSN: 09574522

主题: X ray photoelectron spectroscopy (主要); Composite films; Copper; Crystal structure; Film growth; Hydrothermal synthesis; Morphology; Oxide films; Scanning electron microscopy; Surface morphology; Thin films; X ray diffraction

出版商: Springer New York LLC

出版日期: Jan 1, 2014

出版物名称: Journal of Materials Science: Materials in Electronics

出版物类型: Journal

分类: 544.1: Copper; 712.1: Semiconducting Materials; 712.1.2: Compound Semiconducting Materials; 714.2: Semiconductor Devices and Integrated Circuits; 741.1: Light and Optics; 801: Chemistry; 801.4: Physical Chemistry; 802.2: Chemical Reactions; 931.3: Atomic and Molecular Physics; 951: Materials Science

分页: 4877-4882

创建日期: 2014-12-18

卷: 25

摘要语言: English

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数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-12-21

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Chemical compositions, Composite thin films, O phase, Photocurrent response, Photoresponses, Solution concentration, Surface chemical composition

标题: Effect of solution concentration on surface morphology, chemical composition and photoresponse of CuO/Cu₂O composite thin films grown by hydrothermal synthesis

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第一个可用: 2014-12-21

语言: 英文

Grafting polyzwitterions onto polyamide by click chemistry and nucleophilic substitution on nitrogen: A novel approach to enhance membrane fouling resistance

作者: Yu, Hai-Yin 1 ; Kang, Yan 2 ; Liu, Yaolin 2 ; Mi, Baoxia 2

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出版物信息: Journal of Membrane Science 449 (Jan 1, 2014): 50-57.

[ProQuest 文档链接](#)

摘要 (English): We present a first-of-its-kind use of click chemistry to graft polyzwitterions (PZs) onto polyamide, the most widely used material to make semi-permeable membranes for desalination and water purification. We have also experimentally proven that S_N2 nucleophilic substitution on nitrogen can occur on the polyamide polymer chain under mild reaction conditions, as opposed to harsh reaction conditions required by many traditional grafting approaches. To prepare the click reaction, we synthesized an alkyne-PZ via reversible addition-fragmentation chain-transfer radical polymerization, followed by functionalizing polyamide with azide functional groups through bromination and subsequently S_N2 nucleophilic substitution of Br with azide. The alkyne-PZ was then grafted to azide-polyamide by an azide-alkyne cycloaddition click reaction. The PZ-grafted polyamide became much more hydrophilic than the virgin polyamide. Results of Fourier transform infrared spectroscopy and X-ray photoelectron spectroscopy indicated that a successful click reaction and almost full surface coverage by PZ were achieved under studied experimental conditions. Membrane flux testing in a forward osmosis mode showed that the PZ grafting did not significantly affect the water flux of a polyamide membrane, thereby demonstrating the new grafting approach as a safe route for the surface modification of polyamide membranes. Besides, the PZ-grafted polyamide membrane exhibited excellent antifouling capability, which can be attributed to the shielding of specific binding sites on membrane surface, strong hydrophilic repulsion caused by local charge-induced hydration forces, and steric repulsion introduced by the brush-like flexible PZ chains. Therefore, this study opens a new avenue to surface modification of polyamide with different functional polymers and hence paves the way to a next generation of high-performance polyamide membranes. ©2013 Elsevier B.V.

DOI: <http://dx.doi.org/10.1016/j.memsci.2013.08.022>

ISSN: 03767388

主题: Grafting (chemical) (主要); Brushes; Chains; Desalination; Fourier transform infrared spectroscopy; Functional groups; Hydrocarbons; Hydrophilicity; Membrane fouling; Nitrogen; Photoelectrons; Polyamides; Surface reactions; Surface treatment; Synthesis (chemical); Water filtration; Water supply; X ray photoelectron spectroscopy

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Journal of Membrane Science

出版物类型: Journal

分类: 951: Materials Science; 931.2: Physical Properties of Gases, Liquids and Solids; 931: Applied Physics Generally; 815.1.1: Organic Polymers; 804.1: Organic Compounds; 804: Chemical Products Generally; 802: Chemical Apparatus and Plants; Unit Operations; Unit Processes; 801: Chemistry; 711: Electromagnetic Waves; 605: Small Tools and Hardware; 602.1: Mechanical Drives; 539: Metals Corrosion and Protection; Metal Plating; 446.1: Water Supply Systems

分页: 50-57

创建日期: 2013-09-16

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摘要语言: English

收录号: 20133716742991

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文档状态: New

文档类型: Article

更新: 2013-09-23

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Antifouling, Azide-alkyne cycloaddition, Click chemistry, Mild reaction conditions, Nucleophilic substitutions, Polyzwitterion, Reversible addition fragmentation chain transfer, Semi-permeable membranes, Nucleophilic substitution on nitrogen, Polyamide, Surface modification

标题: Grafting polyzwitterions onto polyamide by click chemistry and nucleophilic substitution on nitrogen: A novel approach to enhance membrane fouling resistance

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第一个可用: 2013-09-23

语言: 英文

Enhancement and regulation of fluorescence emission from NaYF₄:Yb³⁺, Er³⁺ nanocrystals by codoping Mn²⁺ ions

作者: He, Enjie 1 ; Zheng, Hairong 2 ; Gao, Wei 2 ; Tu, Yinxun 2 ; Lu, Ying 2 ; Tian, Huani 2 ; Li, Guian 2

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出版物信息: Journal of Nanoscience and Nanotechnology 14.6 (Jan 1, 2014): 4139-4146.

[ProQuest 文档链接](#)

摘要 (English): NaYF₄:Yb³⁺, Er³⁺, Mn²⁺ nanocrystals with cubic crystal phase were obtained by a facile solvothermal method through doping a proper amount of Mn²⁺ ions to the nanocrystals. The results of XRD and TEM showed that the as-prepared samples were well crystallized and their average size was about 25 nm. Under excitations at 978.5 nm and at 532 nm, obvious enhancement and regulation of upconversion and downconversion fluorescence were obtained. Upconversion emission spectra indicate that these effects were independent of doped concentrations of Er³⁺ and Yb³⁺, excitation power, and the excitation wavelength in the current study. It is concluded that the enhancement of fluorescence emissions is mainly due to the change of local symmetry around Er³⁺ ions, while the regulation of red-to-green ratios was caused by efficient energy transfer between Er³⁺ and Mn²⁺ ions. This kind of upconversion material has a great potential in bioimaging and drug delivery since the excitation and emission falls into the region of "optical window" of biological tissues. Copyright ©2014 American Scientific Publishers All rights reserved.

DOI: <http://dx.doi.org/10.1166/jnn.2014.8040>

ISSN: 15334880

主题: Erbium (主要); Drug delivery; Emission spectroscopy; Energy transfer; Fluorescence; Ions; Manganese; Nanocrystals; Ytterbium

出版商: American Scientific Publishers

出版日期: Jan 1, 2014

出版物名称: Journal of Nanoscience and Nanotechnology

出版物类型: Journal

分类: 461.6: Medicine; 543.2: Manganese and Alloys; 547.2: Rare Earth Metals; 641.2: Heat Transfer; 741.1: Light and Optics; 761: Nanotechnology; 801: Chemistry

分页: 4139-4146

创建日期: 2014-05-13

卷: 14

摘要语言: English

收录号: 20142017714091

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-05-19

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Cubic phase, Downconversion fluorescence, Efficient energy transfer, Excitation wavelength, Fluorescence emission, Local symmetry, Up-conversion emission, Upconversion materials

标题: Enhancement and regulation of fluorescence emission from $\text{NaYF}_4:\text{Yb}^{3+}, \text{Er}^{3+}$ nanocrystals by codoping Mn^{2+} ions

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第一个可用: 2014-05-19

语言: 英文

One-step solid state reaction to synthesis of hexagonal BN crystals with rod-like morphology

作者: Li, Menghua 1 ; Ju, Zhicheng 2 ; Hao, Qin 3 ; Liu, Xinzheng 1 ; Qian, Yitai 4

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出版物信息: Journal of Nanoscience and Nanotechnology 14.7 (Jan 1, 2014): 5542-5546.

[ProQuest 文档链接](#)

摘要 (English): Hexagonal BN crystals have been synthesized from a facile one-step solid state reaction route by sodium tetrphenylborate, hydrazine, zinc powder and sulphur powder as the reactants. The SEM and TEM results showed the BN crystals had the morphology of one-dimensional rod-like shape and with diameters in the range of 100-200 nm and lengths up to several micrometers. Compared with the other reported methods, this route has greatly reduced the reaction temperature. In addition, the growth mechanism of the BN nanorods was discussed in detail. Meanwhile, thermal gravimetric analysis results indicated that the as-prepared BN nanorods have the excellent thermal stability and anti-oxidation properties. Copyright ©2014 American Scientific Publishers All rights reserved.

DOI: <http://dx.doi.org/10.1166/jnn.2014.8699>

ISSN: 15334880

主题: Solid state reactions (主要); Boron nitride; Morphology; Nanorods; Thermodynamic stability; Thermogravimetric analysis

出版商: American Scientific Publishers

出版日期: Jan 1, 2014

出版物名称: Journal of Nanoscience and Nanotechnology

出版物类型: Journal

分类: 641.1: Thermodynamics; 761: Nanotechnology; 801: Chemistry; 802.2: Chemical Reactions; 804.2: Inorganic Compounds; 933: Solid State Physics; 951: Materials Science

分页: 5542-5546

创建日期: 2014-07-13

卷: 14

摘要语言: English

收录号: 20142817933599

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-23

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Anti-oxidation properties, Growth mechanisms, Hexagonal BN crystals, Reaction temperature, Rod-like morphology, Sodium tetrphenylborate, Solid state reaction route, Thermal gravimetric analysis, Nanorod, Solid State Reaction, Thermal Stability

标题: One-step solid state reaction to synthesis of hexagonal BN crystals with rod-like morphology

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第一个可用: 2014-07-23

语言: 英文

Energetic, optical, and electronic properties of intrinsic electron-trapping defects in YAIO 3 : A hybrid DFT study

作者: Ning, Lixin 1 ; Cheng, Weiping 1 ; Zhou, Cuicui 1 ; Duan, Changkui 2 ; Zhang, Yongfan 3

1 Center for Nano Science and Technology, Department of Physics, Anhui Normal University, Wuhu, Anhui 241000, China ninglx@gmail.com 2 Department of Physics, University of Science and Technology of China, Hefei, Anhui 230026, China 3 Key Laboratory of Optoelectronic Materials Chemistry and Physics, Chinese Academy of Sciences, Fuzhou, Fujian 350002, China

出版物信息: Journal of Physical Chemistry C 118.34 (Jan 1, 2014): 19940-19947.

[ProQuest 文档链接](#)

摘要 (English): The formation energies of cation antisite defects (Y_{Al} and Al_Y), oxygen vacancies (V_O), and nearest-neighbor defect complexes ($Y_{Al}-Al_Y$ and $Y_{Al}-V_O$) in various charge states in the YAIO₃ crystal are

calculated using density functional theory (DFT) with a modified PBE0 hybrid functional containing 32% Hartree-Fock (HF) exchange. It is found that the formation of Y_{Al} is more energetically favorable than Al_Y under oxygen-poor condition, consistent with the fact that the latter was not observed in experiments. On the basis of calculated optical transition energies associated with the excitons trapped at Y_{Al} , V_O , and $Y_{Al}-V_O$, the two emission bands observed under excitonic excitation at low temperature are identified. Electronic properties of $Y_{Al}-V_O$ complexes in the neutral and singly negative charge states are finally investigated. It shows that the extra electron added into the negative charge state is mainly localized at 4d orbitals of Y_{Al} with a two-component feature of its density distribution extending axially along the $Y_{Al}-V_O$ direction. ©2014 American Chemical Society.

DOI: <http://dx.doi.org/10.1021/jp5050404>

ISSN: 19327447

主题: Aluminum (主要); Defects; Electronic properties; Point defects

出版商: American Chemical Society

出版日期: Jan 1, 2014

出版物名称: Journal of Physical Chemistry C

出版物类型: Journal

分类: 423: Non Mechanical Properties and Tests of Building Materials; 541.1: Aluminum; 701.1: Electricity, Basic Concepts and Phenomena; 933.1.1: Crystal Lattice; 951: Materials Science

分页: 19940-19947

创建日期: 2014-09-09

卷: 118

摘要语言: English

收录号: 20143718145839

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-09-14

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Anti-site defect, Density distributions, Formation energies, Hybrid functional, Low temperatures, Nearest-neighbors, Negative charge, Optical transition energies

标题: Energetic, optical, and electronic properties of intrinsic electron-trapping defects in $YAlO_3$: A hybrid DFT study

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第一个可用: 2014-09-14

语言: 英文

Site-selective dissociation processes of cationic ethanol conformers: The role of hyperconjugation

作者: Li, Weixing 1 ; Hu, Yongjun 1 ; Liu, Fuyi 2 ; Shan, Xiaobin 2 ; Sheng, Liusi 2

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出版物信息: Journal of Physical Chemistry A 118.34 (Jan 1, 2014): 7096-7103.

[ProQuest 文档链接](#)

摘要 (English): In present report, we explored hyperconjugation effects on the site- and bond-selective dissociation processes of cationic ethanol conformers by the use of theoretical methods (including configuration optimizations, natural bond orbital (NBO) analysis, and density of states (DOS) calculations, etc.) and the tunable synchrotron vacuum ultraviolet (SVUV) photoionization mass spectrometry. The dissociative mechanism of ethanol cations, in which hyperconjugative interactions and charge-transfer processes were involved, was proposed. The results reveal C_α-H and C-C bonds are selectively weakened, which arise as a result of the hyperconjugative interactions $\sigma_{C\alpha-H} \rightarrow p$ in the trans-conformer and $\sigma_{C-C} \rightarrow p$ in gauche-conformer after being ionized. As a result, the selective bond cleavages would occur and different fragments were observed. ©2014 American Chemical Society.

DOI: <http://dx.doi.org/10.1021/jp5035568>

ISSN: 10895639

主题: Ethanol (主要); Dissociation; Ionization; Mass spectrometry

出版商: American Chemical Society

出版日期: Jan 1, 2014

出版物名称: Journal of Physical Chemistry A

出版物类型: Journal

分类: 523: Liquid Fuels; 801: Chemistry; 802.2: Chemical Reactions

分页: 7096-7103

创建日期: 2014-09-08

卷: 118

摘要语言: English

收录号: 20143618143119

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-09-14

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Configuration optimization, Dissociation process, Dissociative mechanisms, Hyperconjugation effects, Hyperconjugative interactions, Natural bond orbital analysis, Photoionization mass spectrometry, Theoretical methods

标题: Site-selective dissociation processes of cationic ethanol conformers: The role of hyperconjugation

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第一个可用: 2014-09-14

语言: 英文

Novel porous CuO microrods: Synthesis, characterization, and their photocatalysis property

作者: Huang, Jiarui 1 ; Fu, Guijun 2 ; Shi, Chengcheng 2 ; Wang, Xinyue 2 ; Zhai, Muheng 2 ; Gu, Cuiping 2

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出版物信息: Journal of Physics and Chemistry of Solids 75.9 (Jan 1, 2014): 1011-1016.

[ProQuest 文档链接](#)

摘要 (English): Porous copper oxide microrods have been synthesized via calcining copper glycinate monohydrate microrod precursor which was prepared in mild conditions without any template or additive. Several techniques, such as X-ray diffraction, field emission scanning electron microscopy, thermogravimetric analysis, Fourier transform infrared spectroscopy, and Brunauer-Emmett-Teller (BET) N₂ adsorption-desorption analyses, were used to characterize the structure and morphology of the products. Scanning electron microscopy (SEM) analyses show that the precursor consists of a large quantity of uniform rod-like micro/nanostructures with typical lengths in the range of 25-40 μm and diameters in the range of 0.1-0.35 μm. The microrod-like precursors transformed into porous microrod products after calcination at 450 °C in flow air for 2 h. The BET surface area of the porous CuO microrods was calculated to be 8.5 m² g⁻¹. In addition, the obtained porous CuO microrods were used as catalysts to photodegrade rhodamine B (RhB), methyl orange, methylene blue, eosin B, and p-nitrophenol. Compared with commercial CuO powders, the as-prepared porous CuO microrods exhibit superior properties on photocatalytic decomposition of RhB due to their porous hierarchical structures. ©2014 Elsevier Ltd.

DOI: <http://dx.doi.org/10.1016/j.jpics.2014.02.009>

ISSN: 00223697

主题: Dyes (主要); Aromatic compounds; Azo dyes; Calcination; Copper oxides; Field emission microscopes; Fourier transform infrared spectroscopy; Microstructure; Photocatalysis; Porous materials; Scanning electron

microscopy; Thermogravimetric analysis; X ray diffraction

出版商: Elsevier Ltd

出版日期: Jan 1, 2014

出版物名称: Journal of Physics and Chemistry of Solids

出版物类型: Journal

分类: 741.1: Light and Optics; 741.3: Optical Devices and Systems; 801: Chemistry; 802.2: Chemical Reactions; 802.3: Chemical Operations; 803: Chemical Agents and Basic Industrial Chemicals; 804.1: Organic Compounds; 804.2: Inorganic Compounds; 931.3: Atomic and Molecular Physics; 951: Materials Science

分页: 1011-1016

创建日期: 2014-06-10

卷: 75

摘要语言: English

收录号: 20142417801471

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-15

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Brunauer emmett tellers, Field emission scanning electron microscopy, Hierarchical structures, Microrods, Photocatalysis properties, Photocatalytic decomposition, Photocatalytic property, Structure and morphology, copper oxide

标题: Novel porous CuO microrods: Synthesis, characterization, and their photocatalysis property

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第一个可用: 2014-06-15

语言: 英文

Fluorogenic detection of Hg 2+ , Cd 2+ , Fe 2+ , Pb 2+ cations in aqueous media by means of an acrylamide-acrylic acid copolymer chemosensor with pendant rhodamine-based dyes

作者: Geng, Tong-Mou 1 ; Wu, Da-Yu 1 ; Huang, Wei 1 ; Huang, Rong-Yi 1 ; Wu, Gen-Hua 1

1 Anhui Key Laboratory of Functional Coordination Compounds, School of Chemistry and Chemical Engineering, Anqing Normal University, Anqing 246003, China gengtongmou@aqtc.edu.cn ;

wudayu_nju@aliyun.com

出版物信息: Journal of Polymer Research 21.3 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): A monomer 1-acryloyl-2-rhodamine 6G hydrazide (AR6GH) was synthesized by the heterogeneous reaction of acryloyl chloride with rhodamine 6G hydrazide (R6GH) and characterized by ^1H NMR, FTIR and elemental analyses. Then it was micellar copolymerized with acrylamide (AM), acrylic acid (AA) to obtain a water-soluble fluorescent copolymers (poly(AM-AA-AR6GH)) which were characterized by the method of FTIR and ^1H NMR. The viscosity average molecular weight M_n of poly(AM-AA) and poly(AM-AA-AR6GH)s were 1.76×10^6 , 8.58×10^4 and 7.68×10^4 g/mol, respectively. The fluorescent characteristic of the aqueous solutions of copolymers was investigated both in varied pH and in the presence of metal cations. The poly(AM-AA-AR6GH) was found to be a selective chemosensor for Hg^{2+} , Cd^{2+} , Fe^{2+} , Pb^{2+} ions. Obvious fluorescence enhancement was due to the photophysical response of the copolymer to the presence of Hg^{2+} , Cd^{2+} , Fe^{2+} , or Pb^{2+} ions. In addition, the ability of the copolymer to detect different metal cations (Ag^+ , Ba^{2+} , Co^{2+} , Cd^{2+} , Cr^{3+} , Cu^{2+} , Fe^{2+} , Fe^{3+} , Hg^{2+} , K^+ , Mg^{2+} , Mn^{2+} , Na^+ , Ni^{2+} , Pb^{2+} , Zn^{2+}) in aqueous solution was studied. The results suggest that copolymer may offer potential application for sensors of Hg^{2+} , Cd^{2+} , Fe^{2+} , or Pb^{2+} ions in aqueous solution. ©2014 Springer Science+Business Media Dordrecht.

DOI: <http://dx.doi.org/10.1007/s10965-013-0354-7>

ISSN: 10229760

主题: Cadmium compounds (主要); Amides; Cadmium; Carboxylic acids; Chlorine compounds; Copolymers; Copper; Fluorescence; Hydrogels; Lead; Mercury (metal); Physiology; Positive ions; Solutions

出版商: Kluwer Academic Publishers

出版日期: Jan 1, 2014

出版物名称: Journal of Polymer Research

出版物类型: Journal

分类: 461.9: Biology; 544.1: Copper; 546.1: Lead and Alloys; 549.3: Others, incl. Bismuth, Boron, Cadmium, Cobalt, Mercury, Niobium, Selenium, Silicon, Tellurium; 741.1: Light and Optics; 801: Chemistry; 803: Chemical Agents and Basic Industrial Chemicals; 804: Chemical Products Generally; 804.1: Organic Compounds; 815.1: Polymeric Materials

创建日期: 2014-03-27

卷: 21

摘要语言: English

收录号: 20141317516962

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-30

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Fluorescence enhancement, Fluorescent characteristic, Fluorescent chemosensors, Heterogeneous reactions, Rhodamine 6G, Sensing cations, Viscosity average molecular weight, Watersoluble polymers, Fluorescent copolymer, Water-soluble polymer

标题: Fluorogenic detection of Hg^{2+} , Cd^{2+} , Fe^{2+} , Pb^{2+} cations in aqueous media by means of an acrylamide-acrylic acid copolymer chemosensor with pendant rhodamine-based dyes

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第一个可用: 2014-03-30

语言: 英文

A robust adaptive grid method for a system of two singularly perturbed convection-diffusion equations with weak coupling

作者: Liu, Li-Bin 1 ; Chen, Yanping 2

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出版物信息: Journal of Scientific Computing 61.1 (Jan 1, 2014): 1-16.

[ProQuest 文档链接](#)

摘要 (English): A system of singularly perturbed convection-diffusion equations with weak coupling is considered. The system is first discretized by an upwind finite difference scheme for which an a posteriori error estimate in the maximum norm is constructed. Then the a posteriori error bound is used to design an adaptive grid algorithm. Finally, a first-order rate of convergence, independent of the perturbation parameters, is established by using the theory of the discrete Green's function. Numerical results are presented to illustrate support our theoretical results. ©2013 Springer Science+Business Media New York.

DOI: <http://dx.doi.org/10.1007/s10915-013-9814-9>

ISSN: 08857474

主题: Perturbation techniques (主要); Diffusion in liquids; Heat convection; Partial differential equations

出版商: Springer New York LLC

出版日期: Jan 1, 2014

出版物名称: Journal of Scientific Computing

出版物类型: Journal

分类: 641.2: Heat Transfer; 921: Applied Mathematics; 921.2: Calculus; 931.2: Physical Properties of Gases, Liquids and Solids

分页: 1-16

创建日期: 2014-09-09

卷: 61

摘要语言: English

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文档状态: New

文档类型: Article

更新: 2014-09-14

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): A-posteriori error estimates, Adaptive methods, Convection diffusion, Convection-diffusion equations, Discrete green's functions, Finite difference scheme, Perturbation parameters, Weak couplings, A posteriori error estimate, Adaptive method, Convection-diffusion, Weak coupling

标题: A robust adaptive grid method for a system of two singularly perturbed convection-diffusion equations with weak coupling

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第一个可用: 2014-09-14

语言: 英文

Synthesis of Ag/NiO composite nanosheets and empty microspheres and their highly effective electrocatalytic properties

作者: Pan, Lu 1 ; Ma, Shanshan 2 ; Li, Li 2 ; Chen, Yonghong 1

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出版物信息: Journal of Sol-Gel Science and Technology 72.1 (Jan 1, 2014): 161-170.

[ProQuest 文档链接](#)

摘要 (English): Ag/NiO composite nanosheets and empty microspheres were fabricated by calcining the precursors synthesized via hydrothermal and solvothermal procedures involved four methods. The as-prepared samples were characterized by thermogravimetric and differential thermal analysis, X-ray diffraction, X-ray photoelectron spectroscopy, transmission electron microscopy and field emission scanning electron microscopy, respectively. The electrocatalytic properties of Ag/NiO composites modified on a glassy carbon electrode for p-nitrophenol reduction were investigated. The results showed that Ag/NiO composites exhibited highly enhanced electrocatalytic activity than a bare glassy carbon electrode, for not only the peak current increased clearly but also the corresponding peak potential decreased markedly. As a comparison, two NiO

samples were used and the results showed that the peak current has an increase but the peak potentials have a slight decrease by comparing to a bare glassy carbon electrode. The Ag/NiO composites have the potential application in the electrocatalysis for the reduction of nitrophenol materials. ©2014 The Author(s).

DOI: <http://dx.doi.org/10.1007/s10971-014-3443-0>

ISSN: 09280707

主题: Microspheres (主要); Catalysis; Differential thermal analysis; Electrocatalysis; Field emission microscopes; Glass; Glass membrane electrodes; Nanosheets; Transmission electron microscopy; X ray diffraction; X ray photoelectron spectroscopy

出版商: Kluwer Academic Publishers

出版日期: Jan 1, 2014

出版物名称: Journal of Sol-Gel Science and Technology

出版物类型: Journal

分类: 741.3: Optical Devices and Systems; 761: Nanotechnology; 801: Chemistry; 802.2: Chemical Reactions; 812.3: Glass; 933: Solid State Physics; 933.1.1: Crystal Lattice

分页: 161-170

创建日期: 2014-09-08

卷: 72

摘要语言: English

收录号: 20143618142664

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-09-14

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Electrocatalytic activity, Electrocatalytic properties, Field emission scanning electron microscopy, Glassy carbon electrodes, p-Nitrophenol, Peak currents, Peak potentials, Thermo-gravimetric, Ag/NiO composites, Empty microspheres

标题: Synthesis of Ag/NiO composite nanosheets and empty microspheres and their highly effective electrocatalytic properties

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第一个可用: 2014-09-14

语言: 英文

Gamma ray irradiated AgFeO₂ nanoparticles with enhanced gas sensor properties

作者: Wang, Xiuhua 1 ; Shi, Zhijie 1 ; Yao, Shangwu 1 ; Liao, Fan 2 ; Ding, Juanjuan 1 ; Shao, Mingwang 2

1 Key Laboratory of Functional Molecular Solids, Ministry of Education, Anhui Normal University, Wuhu 241000, China xhwang@mail.ahnu.edu.cn 2 Institute of Functional Nano and Soft Materials (FUNSOM), Jiangsu Key Laboratory for Carbon-based Functional Materials and Devices, Soochow University, Suzhou 215123, China mwshao@suda.edu.cn

出版物信息: Journal of Solid State Chemistry 219 (Jan 1, 2014): 228-231.

[ProQuest 文档链接](#)

摘要 (English): AgFeO₂ nanoparticles were synthesized via a facile hydrothermal method and irradiated by various doses of gamma ray. The products were characterized with X-ray powder diffraction, UV-vis absorption spectrum and transmission electron microscope. The results revealed that the crystal structure, morphology and size of the samples remained unchanged after irradiation, while the intensity of UV-Vis spectra increased with irradiation dose increasing. In addition, gamma ray irradiation improved the performance of gas sensor based on the AgFeO₂ nanoparticles including the optimum operating temperature and sensitivity, which might be ascribed to the generation of defects. ©2014 Elsevier Inc. All rights reserved.

DOI: <http://dx.doi.org/10.1016/j.jssc.2014.07.024>

ISSN: 00224596

主题: Synthesis (chemical) (主要); Chemical sensors; Ethanol; Gamma rays; Gas detectors; Irradiation; Nanoparticles; Transmission electron microscopy; Ultraviolet spectroscopy; X ray powder diffraction

出版商: Academic Press Inc.

出版日期: Jan 1, 2014

出版物名称: Journal of Solid State Chemistry

出版物类型: Journal

分类: 523: Liquid Fuels; 708: Electric and Magnetic Materials; 741.1: Light and Optics; 741.3: Optical Devices and Systems; 761: Nanotechnology; 801: Chemistry; 802.2: Chemical Reactions; 932.1: High Energy Physics; 933: Solid State Physics; 933.1.1: Crystal Lattice

分页: 228-231

创建日期: 2014-10-09

卷: 219

摘要语言: English

收录号: 20143518101251

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-10-12

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Delafossites, Gamma-ray irradiation, Hydrothermal methods, Irradiation dose, Morphology and size, Operating temperature, Sensor properties, UV-VIS absorption spectra, Delafossite, Gamma ray irradiation, Gas sensor

标题: Gamma ray irradiated AgFeO_2 nanoparticles with enhanced gas sensor properties

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第一个可用: 2014-10-12

语言: 英文

Fe₃O₄@C core-shell microspheres: Synthesis, characterization, and application as supercapacitor electrodes

作者: Pu, Jun 1 ; Shen, Ling 1 ; Zhu, Shiyu 1 ; Wang, Jie 1 ; Zhang, Wu 1 ; Wang, Zhenghua 1

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出版物信息: Journal of Solid State Electrochemistry 18.4 (Jan 1, 2014): 1067-1076.

[ProQuest 文档链接](#)

摘要 (English): Fe_3O_4 @C microspheres with diameter of about 400 nm and carbon layer thickness of about 30 nm have been successfully prepared through solvothermal reactions and subsequent calcination under the protection of Ar. The composition, structure, and morphological characteristics were studied by X-ray diffraction (XRD), energy-dispersive spectrometry (EDX), field emission scanning electron microscopy (FESEM), and transmission electron microscopy (TEM). The Fe_3O_4 @C microspheres can maintain a maximum specific capacitance of 110.8 F g^{-1} at current density of 0.5 A g^{-1} , higher than pure Fe_3O_4 (67.9 F g^{-1}). After 2,000 electrochemical cycles, the Fe_3O_4 @C electrode still remaining 95.6 % of the highest specific capacitance, indicating its good cycle stability. The results show that the Fe_3O_4 @C microspheres are promising electrode materials for high performance supercapacitors. ©2013 Springer-Verlag Berlin Heidelberg.

DOI: <http://dx.doi.org/10.1007/s10008-013-2359-x>

ISSN: 14328488

主题: Electrochemical electrodes (主要); Electrolytic capacitors; Field emission microscopes; Microspheres; Transmission electron microscopy; X ray diffraction

出版商: Springer New York LLC

出版日期: Jan 1, 2014

出版物名称: Journal of Solid State Electrochemistry

出版物类型: Journal

分类: 704.1: Electric Components; 741.3: Optical Devices and Systems; 802.1: Chemical Plants and Equipment; 818: Rubber and Elastomers; 931.3: Atomic and Molecular Physics

分页: 1067-1076

创建日期: 2014-04-02

卷: 18

摘要语言: English

收录号: 20141417538302

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-04-06

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Core-shell microspheres, Electrochemical cycle, Field emission scanning electron microscopy, Hydrothermal methods, Morphological characteristic, Solvothermal reactions, Super capacitor, Supercapacitor electrodes, Hydrothermal method, Supercapacitors

标题: Fe₃O₄@C core-shell microspheres: Synthesis, characterization, and application as supercapacitor electrodes

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第一个可用: 2014-04-06

语言: 英文

Network TiO₂ nanowires for dye-sensitized solar cells

作者: Wang, Juangang 1 ; Bai, Dongsheng 1

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出版物信息: Journal of the Electrochemical Society 161.5 (Jan 1, 2014): H265-H268.

[ProQuest 文档链接](#)

摘要 (English): In this work, we made network TiO₂ nanowires of high surface area, using the seeded growth process. An overall solar photoconversion efficiency of 8.51% has been achieved from the film including TiO₂ network nanowires, which is much higher than 6.94% of TiO₂ nanoparticulate film with same thickness (6.2 μm).
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DOI: <http://dx.doi.org/10.1149/2.005405jes>

ISSN: 00134651

主题: Titanium dioxide (主要); Dye-sensitized solar cells; Nanowires; Solar cells

出版商: Electrochemical Society Inc.

出版日期: Jan 1, 2014

出版物名称: Journal of the Electrochemical Society

出版物类型: Journal

分类: 615.2: Solar Power; 761: Nanotechnology; 804.2: Inorganic Compounds; 933: Solid State Physics

分页: H265-H268

创建日期: 2014-07-31

卷: 161

摘要语言: English

收录号: 20143118008162

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-08-04

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Dye-Sensitized solar cell, High surface area, Nano particulates, Photoconversion efficiency, Seeded growth, TiO

标题: Network TiO₂ nanowires for dye-sensitized solar cells

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第一个可用: 2014-08-04

语言: 英文

On string languages generated by sequential spiking neural P systems based on maximum spike number

作者: Jiang, Keqin 1 ; Zhang, Yuzhou 2 ; Pan, Linqiang 3

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出版物信息: 于 Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) , 203-215. Springer Verlag, (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): Spiking neural P systems (SN P systems, for short) are a class of distributed parallel computing devices inspired from the way neurons communicate by means of spikes. In this work, we consider SN P systems with the restriction: at each step the neuron with the maximum number of spikes among the neurons that can spike will fire (if there is a tie for the maximum number of spikes stored in the active neurons, only one of the neurons containing the maximum is chosen non-deterministically). We investigate the computational power of such sequential SN P systems that are used as language generators. We prove that recursively enumerable languages can be characterized as projections of inverse-morphic images of languages generated by that sequential SN P systems. The relationships of the languages generated by these sequential SN P systems with finite and regular languages are also investigated. ©2014 Springer International Publishing Switzerland.

DOI: <http://dx.doi.org/10.1007/978-3-319-08123-6-17>

ISSN: 03029743

主题: Neurons (主要); Bioinformatics; Parallel architectures

出版商: Springer Verlag

出版日期: Jan 1, 2014

出版物名称: Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)

出版物类型: Book Series

分类: 461.9: Biology; 722: Computer Hardware; 723: Computer Software, Data Handling and Applications; 903: Information Science

分页: 203-215

创建日期: 2014-07-30

卷: 8553 LNCS

摘要语言: English

收录号: 20143118004358

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Conference Paper

更新: 2014-08-04

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Computational power, Distributed parallel computing, Language generators, Maximum spike number, Membrane computing, Recursively enumerable languages, Sequentiality, Spiking neural P systems, Spiking neural P system

标题: On string languages generated by sequential spiking neural P systems based on maximum spike number

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第一个可用: 2014-08-04

语言: 英文

Simulated annealing based algorithm for mutated driver pathways detecting

作者: Yan, Chao 1 ; Li, Hai-Tao 2 ; Guo, Ai-Xin 1 ; Sha, Wen 1 ; Zheng, Chun-Hou 3

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出版物信息: 于 Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) , 658-663. Springer Verlag, (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): With the development of Next-generation DNA sequencing technologies, one of the challenges is to distinguish functional mutations vital for cancer development, and filter out the unfunctional and random "passenger mutations." In this study, we introduce a modified method to solve the so-called maximum weight submatrix problem which is based on two combinatorial properties, i.e., coverage and exclusivity. This problem can be used to find driver mutations. Particularly, we enhance an integrative model which combines mutation and expression data. We apply our method to simulated data, the experiment shows that our method is efficiency. Then we apply our proposed method onto real biological datasets, the results also show that it is applicable in real applications. ©2014 Springer International Publishing Switzerland.

DOI: <http://dx.doi.org/10.1007/978-3-319-09339-0-66>

ISSN: 03029743

主题: DNA sequences (主要); Algorithms; Intelligent computing; Simulated annealing

出版商: Springer Verlag

出版日期: Jan 1, 2014

出版物名称: Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)

出版物类型: Book Series

分类: 461.2: Biological Materials; 723: Computer Software, Data Handling and Applications; 723.4: Artificial Intelligence; 921: Applied Mathematics

分页: 658-663

创建日期: 2014-07-29

卷: 8589 LNAI

摘要语言: English

收录号: 20143117998893

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Conference Paper

更新: 2014-08-04

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Cancer development, Combinatorial properties, Expression data, Integrative modeling, Next-generation dna sequencing, Real applications, SAGA method, Submatrix, driver pathways identification, maximum weight submatrix problem, Next-generation DNA sequencing data

标题: Simulated annealing based algorithm for mutated driver pathways detecting

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第一个可用: 2014-08-04

语言: 英文

Brain connectivity hyper-network for MCI classification

作者: Jie, Biao 1 ; Shen, Dinggang 2 ; Zhang, Daoqiang 3

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出版物信息: 于 Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) , 724-732. Springer Verlag, (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): Brain connectivity network has been used for diagnosis and classification of neurodegenerative diseases, such as Alzheimer's disease (AD) as well as its early stage, i.e., mild cognitive impairment (MCI).

However, conventional connectivity network is usually constructed based on the pairwise correlation among brain regions and thus ignores the higher-order relationship among them. Such information loss is unexpected because the brain itself is a complex network and the higher-order interaction may contain useful information for classification. Accordingly, in this paper, we propose a new brain connectivity hyper-network based method for MCI classification. Here, the connectivity hyper-network denotes a network where an edge can connect more than two brain regions, which can be naturally represented with a hyper-graph. Specifically, we first construct connectivity hyper-networks from the resting-state fMRI time series using sparse representation modeling. Then, we extract three sets of the brain-region specific features from the connectivity hyper-networks, and exploit a manifold regularized multi-task feature selection method to jointly select the most discriminative features. Finally, we use multi-kernel support vector machine (SVM) for classification. The experimental results demonstrate the efficacy of our proposed method for MCI classification with comparison to the conventional connectivity network based methods. ©2014 Springer International Publishing.

DOI: http://dx.doi.org/10.1007/978-3-319-10470-6_90

ISSN: 03029743

主题: Support vector machines (主要); Brain; Neurodegenerative diseases

出版商: Springer Verlag

出版日期: Jan 1, 2014

出版物名称: Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)

出版物类型: Book Series

分类: 461.1: Biomedical Engineering; 461.6: Medicine; 723: Computer Software, Data Handling and Applications

分页: 724-732

创建日期: 2014-09-16

卷: 8674 LNCS

摘要语言: English

收录号: 20143818167951

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Conference Paper

更新: 2014-09-21

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Alzheimer's disease, Brain connectivity, Discriminative features, Feature selection methods, Mild cognitive impairments (MCI), Pairwise correlation, Resting-state fmri, Sparse representation

标题: Brain connectivity hyper-network for MCI classification

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第一个可用: 2014-09-21

语言: 英文

Energy effective congestion control for multicast with network coding in wireless ad hoc network

作者: Zhao, Chuanxin 1 ; Luo, Yonglong 1 ; Chen, Fulong 1 ; Zhang, Ji 2 ; Wang, Ruchuan 3

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出版物信息: Mathematical Problems in Engineering 2014 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): In order to improve network throughput and reduce energy consumption, we propose in this paper a cross-layer optimization design that is able to achieve multicast utility maximization and energy consumption minimization. The joint optimization of congestion control and power allocation is formulated to be a nonlinear nonconvex problem. Using dual decomposition, a distributed optimization algorithm is proposed to avoid the congestion by control flow rate at the source node and eliminate the bottleneck by allocating the power at the intermediate node. Simulation results show that the cross-layer algorithm can increase network performance, reduce the energy consumption of wireless nodes and prolong the network lifetime, while keeping network throughput basically unchanged. ©2014 Chuanxin Zhao et al.

DOI: <http://dx.doi.org/10.1155/2014/135945>

ISSN: 1024123X

主题: Multicasting (主要); Algorithms; Energy utilization; Optimization; Telecommunication networks; Traffic congestion; Wireless ad hoc networks

出版商: Hindawi Publishing Corporation

出版日期: Jan 1, 2014

出版物名称: Mathematical Problems in Engineering

出版物类型: Journal

分类: 432.4: Highway Traffic Control; 525.3: Energy Utilization; 716: Electronic Equipment, Radar, Radio and Television; 717: Electro-Optical Communication; 718: Telephone and Other Line Communications; 723: Computer Software, Data Handling and Applications; 921: Applied Mathematics; 921.5: Optimization Techniques

创建日期: 2014-06-19

卷: 2014

摘要语言: English

收录号: 20142517835018

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-22

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Cross layer optimization, Cross-layer algorithm, Distributed optimization, Dual decomposition, Energy Consumption Minimization, Joint optimization, Reduce energy consumption, Utility maximizations

标题: Energy effective congestion control for multicast with network coding in wireless ad hoc network

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第一个可用: 2014-06-22

语言: 英文

Aerosol laser time-of-flight mass spectrometer for the on-line measurement of secondary organic aerosol in smog chamber

作者: Huang, Mingqiang 1 ; Liu, Xingqiang 2 ; Hu, Changjin 3 ; Guo, Xiaoyong 3 ; Gu, Xuejun 3 ; Zhao, Weixiong 3 ; Wang, Zhenya 3 ; Fang, Li 3 ; Zhang, Weijun 3

1 College of Chemistry and Environment, Minnan Normal University, Zhangzhou 363000, China, Department of Environmental Science and Engineering, Xiamen University, Tan Kah Kee College, Zhangzhou 363105, China
2 Department of Environmental Science and Engineering, Xiamen University, Tan Kah Kee College, Zhangzhou 363105, China
3 Laboratory of Atmospheric Physico-Chemistry, Anhui Institute of Optics and Fine Mechanics, Chinese Academy of Sciences, Hefei 230031, China wjzhang@aiofm.ac.cn

出版物信息: Measurement: Journal of the International Measurement Confederation 55 (Jan 1, 2014): 394-401.

[ProQuest 文档链接](#)

摘要 (English): An aerosol laser time of flight mass spectrometer (ALTOFMS) that can be used for real-time measurement of the size and composition of individual aerosol particles has been designed and utilized to provide on-line measurement of secondary organic aerosol (SOA) particles resulted from Cl-initiated oxidation of toluene in smog chamber. Both the size and chemical compositions of individual aerosol particles were obtained in real-time. According to a large number of single aerosol diameters and mass spectra, the size distribution and chemical composition of aerosol were determined statistically. Experimental results indicate that aerosol particles produced from Cl-initiated oxidation of toluene were predominantly in the form of PM 2.5 particles, and nine positive laser desorption/ionization mass spectra peaks: m/z 18, 29, 30, 44, 46, 52, 65, 77, and 94 may come from the fragment ions of the products of the SOA: aromatic aldehydes, aromatic acids,

phenolic compounds, and nitrogenated organic compounds. These results were in good agreement with those ones from previous Cl-initiated oxidation of toluene. These were demonstrated that ALTOFMS is a useful tool to reveal the formation and transformation processes of SOA particles in smog chamber. ©2014 Elsevier Ltd. All rights reserved.

DOI: <http://dx.doi.org/10.1016/j.measurement.2014.05.038>

ISSN: 02632241

主题: Aerosols (主要); Air pollution; Aromatic compounds; Chlorine compounds; Desorption; Mass spectrometers; Mass spectrometry; Organic lasers; Oxidation; Smoke; Toluene

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Measurement: Journal of the International Measurement Confederation

出版物类型: Journal

分类: 451: Air Pollution; 744.1: Lasers, General; 802.2: Chemical Reactions; 802.3: Chemical Operations; 804: Chemical Products Generally; 804.1: Organic Compounds; 943.3: Special Purpose Instruments

分页: 394-401

创建日期: 2014-07-02

卷: 55

摘要语言: English

收录号: 20142717893739

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-06

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Chemical compositions, Cl-initiated oxidations, Laser desorption/ionization, On-line measurement, Real time measurements, Secondary organic aerosols, Time-of-flight mass spectrometers, Transformation process, Aerosol laser time of flight mass spectrometer (ALTOFMS), Appearance probability, Secondary organic aerosol (SOA)

标题: Aerosol laser time-of-flight mass spectrometer for the on-line measurement of secondary organic aerosol in smog chamber

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第一个可用: 2014-07-06

语言: 英文

Conversion of AgCl nanocubes to Ag/AgCl nanohybrids via solid-liquid reaction for surface-enhanced Raman scattering detection

作者: Cui, Fangling 1 ; Zhai, Muheng 1 ; Wu, Konglin 1 ; Yu, Nan 1 ; Wang, Zhenghua 1

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出版物信息: Micro and Nano Letters 9.5 (Jan 1, 2014): 297-301.

[ProQuest 文档链接](#)

摘要 (English): In this reported work, Ag/AgCl nanohybrids were synthesised through a facile solid-liquid reaction approach by reducing pre-grown AgCl nanocubes with a sodium borohydride (NaBH_4) ethanol solution. The morphology of the AgCl nanocubes' precursor is kept very well after the reactions. The influence of the NaBH_4 concentration and the injection speed of NaBH_4 solution were studied. It is demonstrated that the prepared Ag/AgCl nanohybrids can serve as effective surface-enhanced Raman scattering (SERS) substrate. Rhodamine 6G (R6G) as the typical SERS analyte was applied to determine the effect of the Ag/AgCl substrate, and SERS signals of R6G were observed in a low concentration of 1×10^{-12} M. Furthermore, the Ag/AgCl substrate was applied to detect other analytes such as crystal violet and 4-mercaptobenzoic acid, which also show high sensitivity. ©The Institution of Engineering and Technology 2014.

DOI: <http://dx.doi.org/10.1049/mnl.2014.0091>

主题: Substrates (主要); Nanostructured materials; Raman scattering; Silver halides; Surface scattering

出版商: Institution of Engineering and Technology

出版日期: Jan 1, 2014

出版物名称: Micro and Nano Letters

出版物类型: Journal

分类: 461: Bioengineering; 741.1: Light and Optics; 761: Nanotechnology; 801: Chemistry; 804: Chemical Products Generally; 931: Applied Physics Generally

分页: 297-301

创建日期: 2014-06-11

卷: 9

摘要语言: English

收录号: 20142417811326

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-15

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): 4-mercaptobenzoic acids, Ethanol solutions, High sensitivity, Injection speed, Low concentrations, Sodium boro hydrides, Solid liquid reactions, Surface enhanced Raman Scattering (SERS)

标题: Conversion of AgCl nanocubes to Ag/AgCl nanohybrids via solid-liquid reaction for surface-enhanced Raman scattering detection

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第一个可用: 2014-06-15

语言: 英文

Preparation of Ag₂SO₃ sub-microparticles with high visible-light photocatalytic activity

作者: Dong, Chao 1 ; Wu, Kong-Lin 1 ; Wei, Xian-Wen 2 ; Wang, Jing 1 ; Liu, Li 1 ; Hu, Yu 1 ; Xia, Shan-Hui 1

1 Anhui Laboratory of Molecular-Based Materials, Anhui Normal University, Ministry of Education, Wuhu 241000, China 2 Anhui Laboratory of Molecular-Based Materials, Anhui Normal University, Ministry of Education, Wuhu 241000, China, School of Chemical and Engineering, Key Laboratory of Functional Molecular Solids, Anhui University of Technology, Maanshan 243002, China xwwei@mail.ahnu.edu.cn

出版物信息: Micro and Nano Letters 9.6 (Jan 1, 2014): 417-420.

[ProQuest 文档链接](#)

摘要 (English): A visible-light sensitive Ag₂SO₃ semiconductor photocatalyst with size of ca. 500 nm was prepared by a simple precipitation method. This photocatalyst exhibits high-efficiency degradation ability for typical three dyes, which can be ascribed to the efficient photosensitised electron injection and slow electron recombination. The photocatalytic reaction follows a pseudo-first-order reaction and the rate constant of Ag₂SO₃ for the degradation of rhodamine B is estimated to be 1.7 times that of commercial TiO₂. The stability of unstable Ag₂SO₃ was remarkably enhanced by the addition of Na₂SO₃. The h⁺ and •O₂⁻ played relatively major roles during the photocatalytic reaction. ©The Institution of Engineering and Technology 2014.

DOI: <http://dx.doi.org/10.1049/mnl.2014.0110>

主题: Silver (主要); Photocatalysts; Precipitation (chemical); Rate constants

出版商: Institution of Engineering and Technology

出版日期: Jan 1, 2014

出版物名称: Micro and Nano Letters

出版物类型: Journal

分类: 547.1: Precious Metals; 802.2: Chemical Reactions; 802.3: Chemical Operations; 803: Chemical Agents and Basic Industrial Chemicals

分页: 417-420

创建日期: 2014-07-01

卷: 9

摘要语言: English

收录号: 20142717885979

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-06

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Commercial TiO, High-efficiency, Photocatalytic reactions, Precipitation methods, Pseudo-first-order reaction, Semiconductor photocatalyst, Slow electrons, Visible-light photocatalytic activities

标题: Preparation of Ag_2SO_3 sub-microparticles with high visible-light photocatalytic activity

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第一个可用: 2014-07-06

语言: 英文

Cycling behavior of aqueous energy storage based on LiMn_2O_4 and activated carbon with different cathode current collectors

作者: Tao, Haisheng 1 ; Du, Lisha 2 ; Cheng, Yingying 2 ; Zhang, Xuemei 2 ; Zhang, Shuqiong 2 ; Fang, Wei 1

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出版物信息: Nanoscience and Nanotechnology Letters 6.1 (Jan 1, 2014): 44-50.

[ProQuest 文档链接](#)

摘要 (English): An easily scaled up industrialized, energy saving method is developed to prepare LiMn_2O_4 particles with about 400 nm diameters. The as-prepared product is characterized by X-ray diffraction, scanning electron microscopy, and transmission electron microscopy. The results of cyclic voltammograms measurement suggest that the as-prepared LiMn_2O_4 can be used as cathode for aqueous energy storage. Activated carbon and $0.5 \text{ mol l}^{-1} \text{ Li}_2\text{SO}_4$ are used as anode and aqueous electrolytes in this aqueous system, respectively. Specially, the electrochemical performances of the LiMn_2O_4 with different cathode current collectors, including glassy carbon, stainless steel and nickel, are investigated with an emphasis on full charge/discharge cycling. The LiMn_2O_4 loaded on stainless steel exhibits excellent electrochemical performance-outstanding specific capacities, high discharge rate and long cycle life, demonstrating potential application in aqueous energy

storages. © 2014 American Scientific Publishers All rights reserved .

DOI: <http://dx.doi.org/10.1166/nnl.2014.1723>

ISSN: 19414900

主题: Energy storage (主要); Activated carbon; Cathodes; Electric current collectors; Electric discharges; Lithium alloys; Magnetrons; Nanostructured materials; Scanning electron microscopy; Secondary batteries; Transmission electron microscopy; X ray diffraction

出版商: American Scientific Publishers

出版日期: Jan 1, 2014

出版物名称: Nanoscience and Nanotechnology Letters

出版物类型: Journal

分类: 549.1: Alkali Metals; 701.1: Electricity, Basic Concepts and Phenomena; 702: Electric Batteries and Fuel Cells; 702.1.2: Secondary Batteries; 706.2: Electric Power Lines and Equipment; 714.1: Electron Tubes; 741.1: Light and Optics; 741.3: Optical Devices and Systems; 761: Nanotechnology; 804: Chemical Products Generally; 931.3: Atomic and Molecular Physics

分页: 44-50

创建日期: 2014-02-26

卷: 6

摘要语言: English

收录号: 20140917367912

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-05

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Cathode current collectors, Charge/discharge cycling, Current collector, Cyclic voltammograms, Electrochemical performance, Energy saving methods, Lithium manganates, Specific capacities, Aqueous Energy Storage, Lithium Manganate, Nanomaterials

标题: Cycling behavior of aqueous energy storage based on LiMn_2O_4 and activated carbon with different cathode current collectors

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第一个可用: 2014-03-05

语言: 英文

Synthesis, crystal structures and third-order nonlinear optical properties in the near-IR range of two novel Ni(II) complexes

作者: Liu, Yanqiu 1 ; Wang, Hui 1 ; Zhang, Jun 1 ; Li, Shengli 1 ; Wang, Chuankui 2 ; Ding, Hongjuan 2 ; Wu, Jieying 1 ; Tian, Yupeng 3

1 Department of Chemistry, Key Laboratory of Functional Inorganic Materials Chemistry of Anhui Province, Anhui University, Hefei 230039, China jywu1957@163.com 2 Department of Physics, Shandong Normal University, Jinan 250014, China 3 Department of Chemistry, Key Laboratory of Functional Inorganic Materials Chemistry of Anhui Province, Anhui University, Hefei 230039, China, State Key Laboratory of Coordination Chemistry, Nanjing University, Nanjing 210093, China yptian@ahu.edu.cn

出版物信息: Optical Materials 36.3 (Jan 1, 2014): 687-696.

[ProQuest 文档链接](#)

摘要 (English): Two novel Nickel(II) complexes (NiL21 and NiL22) with remarkable two-photon absorption (TPA) and optical power limiting (OPL) properties were synthesized and fully characterized. Single crystals were obtained and solved by X-ray diffraction analysis. Their photophysical properties had been further investigated both experimentally and theoretically. The third-order nonlinear optical (NLO) properties (TPA and OPL) were investigated by open/closed aperture Z-scan measurements using femtosecond pulse laser in the range from 680 to 1080 nm. The results revealed that the two Nickel(II) complexes exhibited strong two-photon absorption and superior optical power limiting properties, which are much better than that of the free ligands. ©2013 Elsevier B.V. All rights reserved.

DOI: <http://dx.doi.org/10.1016/j.optmat.2013.11.014>

ISSN: 09253467

主题: Synthesis (chemical) (主要); Electromagnetic pulse; Luminescence of organic solids; Nonlinear optics; Two photon processes; X ray diffraction analysis

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Optical Materials

出版物类型: Journal

分类: 701: Electricity and Magnetism; 741.1: Light and Optics; 741.1.1: Nonlinear Optics; 801: Chemistry; 802.2: Chemical Reactions

分页: 687-696

创建日期: 2013-12-24

卷: 36

摘要语言: English

收录号: 20135217126741

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2013-12-30

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Femtosecond pulse laser, Nickel complex, Optical power limiting, Photophysical properties, Third order nonlinear optical properties, Third-order nonlinear optical, Two-photon absorptions, Z-scan technique, Nickel(II) complex, Two-photon absorption

标题: Synthesis, crystal structures and third-order nonlinear optical properties in the near-IR range of two novel Ni(II) complexes

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第一个可用: 2013-12-30

语言: 英文

Sensor for headspace pressure and H₂O concentration measurements in closed vials by tunable diode laser absorption spectroscopy

作者: Cai, Tingdong 1 ; Wang, Guishi 2 ; Cao, Zhensong 2 ; Zhang, Weijun 2 ; Gao, Xiaoming 2

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出版物信息: Optics and Lasers in Engineering 58 (Jan 1, 2014): 48-53.

[ProQuest 文档链接](#)

摘要 (English): The concentration of H₂O and the pressure in the headspace of vials are simultaneously measured by a tunable diode laser sensor based on absorption spectroscopy techniques. The 7168.437 cm⁻¹ spectral line of H₂O is chosen as the sensing transition for its strong absorption strength and being reasonably far away from its neighboring molecular transitions. In order to prevent interference absorption by ambient water vapor in the room air, a difference between the measured signal and the referenced signal is used to calculate the pressure and H₂O concentration in the headspace of vials, eliminating the need for inert gas purges and calibration with known gas. The validation of the sensor is conducted in a static vial, yielding an accuracy of 1.23% for pressure and 3.81% for H₂O concentration. The sensitivity of the sensor is estimated to be about 2.5 Torr for pressure and 400 ppm for H₂O concentration over a 3 cm absorption path length respectively. Accurate measurements for commercial freeze-dried products demonstrate the in-line applications of the sensor for the pharmaceutical industry. ©2014 Published by Elsevier Ltd.

DOI: <http://dx.doi.org/10.1016/j.optlaseng.2013.12.005>

ISSN: 01438166

主题: Sensors (主要); Inert gases; Semiconductor lasers

出版商: Elsevier Ltd

出版日期: Jan 1, 2014

出版物名称: Optics and Lasers in Engineering

出版物类型: Journal

分类: 714.2: Semiconductor Devices and Integrated Circuits; 801: Chemistry; 804.2: Inorganic Compounds

分页: 48-53

创建日期: 2014-03-03

卷: 58

摘要语言: English

收录号: 20140917397277

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-05

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Accurate measurement, Concentration Measurement, Freeze-dried products, Headspace analysis, Molecular transitions, Pharmaceutical industry, Tunable diode laser absorption spectroscopy, Tunable diode lasers, Sensor, Tunable diode laser absorption spectroscopy (TDLAS)

标题: Sensor for headspace pressure and H₂O concentration measurements in closed vials by tunable diode laser absorption spectroscopy

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第一个可用: 2014-03-05

语言: 英文

Static magnetic faraday rotation spectroscopy for OH radical detection at 2.8 μm

作者: Zhao, Weixiong 1 ; Deng, Lunhua 2 ; Xu, Xuezhe 1 ; Chen, Weidong 3 ; Gao, Xiaoming 1 ; Huang, Wei 1 ; Zhang, Weijun 1

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Coast, 59140 Dunkerque, France

出版物信息: Optics InfoBase Conference Papers (Jan 1, 2014)

[ProQuest 文档链接](#)

摘要 (English): We report on the development of a Faraday rotation spectrometer operating at 2.8 μm for OH radical detection with a static magnetic (DC) field in combination with wavelength modulation spectroscopy.

©2014 OSA.

主题: Spectrometers (主要); Free radicals; Molecular spectroscopy; Turbulence

出版商: Optical Society of American (OSA)

出版日期: Jan 1, 2014

出版物名称: Optics InfoBase Conference Papers

出版物类型: Conference Papers & Proceedings

分类: 443.1: Atmospheric Properties; 741.3: Optical Devices and Systems; 801: Chemistry; 804: Chemical Products Generally

创建日期: 2014-09-02

摘要语言: English

收录号: 20143618132700

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Conference Paper

更新: 2014-09-07

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Faraday rotation spectroscopy, OH radical, Wavelength modulation spectroscopy

标题: Static magnetic faraday rotation spectroscopy for OH radical detection at 2.8 μm

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第一个可用: 2014-09-07

语言: 英文

Color balloon snakes for face segmentation

作者: Ding, Xintao 1 ; Luo, Yonglong 1 ; Sun, Liping 1 ; Chen, Fulong 2

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出版物信息: Optik 125.11 (Jan 1, 2014): 2538-2542.

[ProQuest 文档链接](#)

摘要 (English): In this paper, a new color balloon snake model is introduced and used for face segmentation in color images. It is an extension of existing balloon snake models. Based on a coarse detection of facial features, the method combines a skin-tone distribution model and a boundary diffusion model to search for the facial boundary. The skin distribution is a single Gaussian, which is proposed to extract the skin-tone region in the RGB space. The diffusion model, which is invented to diffuse the facial boundary, is a one-dimensional Gauss revolution surface. The parameters are evaluated based on an AdaBoost face detection method. The color snakes are weighted by the distributions, and the external forces evolve dynamically to reach the boundary, which depends on the balance between the internal and external forces. Experiments were conducted, and the results show that the model provides desired segmentation outcomes. It is robust against complex backgrounds and lighting pollution. ©2014 Elsevier GmbH. All rights reserved.

DOI: <http://dx.doi.org/10.1016/j.ijleo.2013.10.110>

ISSN: 00304026

主题: Color (主要); Adaptive boosting; Balloons; Image segmentation

出版商: Urban und Fischer Verlag Jena

出版日期: Jan 1, 2014

出版物名称: Optik

出版物类型: Journal

分类: 652.5: Balloons and Gliders; 723: Computer Software, Data Handling and Applications; 741.1: Light and Optics

分页: 2538-2542

创建日期: 2014-05-29

卷: 125

摘要语言: English

收录号: 20142217757225

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-01

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Balloon snake, Color images, Complex background, Distribution models, Face detection methods, Face segmentation, Revolution surfaces, Skin distributions, Color balloon snakes, Color image

标题: Color balloon snakes for face segmentation

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第一个可用: 2014-06-01

语言: 英文

Shell histogram equalization of color images

作者: Ding, Xintao 1 ; Sun, Liping 1 ; Luo, Yonglong 2

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出版物信息: Optik 125.13 (Jan 1, 2014): 3350-3354.

[ProQuest 文档链接](#)

摘要 (English): Histogram equalization (HE) is an effective technique for image enhancement. In this study, we devised a new technique called shell histogram equalization for color images. The technique is a dimensionality reduction method, which transforms 3-D space enhancement to 1-D shell enhancement. First, the 3-D RGB color space is decomposed into L (L = 256) RGB shells, which are similar to a quarter sphere shells or a quarter onion squamae. Then, HE is implemented on shells, and makes the shells coincide with the distribution of the iso-luminance-planes in the RGB cube. After analyzing the computational complexity of the proposed method, comparison experiments are carried out and validated by subjective and objective assessments. The experimental results show that the method provides better enhancement for underexposed and high dynamic range images, and the computational time of the method is much lower. ©2014 Elsevier GmbH.

DOI: <http://dx.doi.org/10.1016/j.ijleo.2013.12.071>

ISSN: 00304026

主题: Shells (structures) (主要); Color; Face recognition; Graphic methods; Image enhancement

出版商: Urban und Fischer Verlag Jena

出版日期: Jan 1, 2014

出版物名称: Optik

出版物类型: Journal

分类: 408.2: Structural Members and Shapes; 741: Light, Optics and Optical Devices; 741.1: Light and Optics; 902.1: Engineering Graphics

分页: 3350-3354

创建日期: 2014-06-09

卷: 125

摘要语言: English

收录号: 20142317798057

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-15

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Computational time, Dimensionality reduction, Dimensionality reduction method, High dynamic range images, Histogram equalizations, Objective assessment, RGB color space, Space decomposition, Histogram equalization, Shell histogram equalization

标题: Shell histogram equalization of color images

版权: Copyright 2014 Elsevier B.V., All rights reserved.

第一个可用: 2014-06-15

语言: 英文

248 nm imaging photolithography assisted by surface plasmon polariton interference

作者: Tian, Man-man 1 ; Mi, Jia-jia 1 ; Shi, Jian-ping 1 ; Wei, Nan-nan 1 ; Zhan, Ling-li 1 ; Huang, Wan-xia 1 ; Zuo, Ze-wen 1 ; Wang, Chang-tao 2 ; Luo, Xian-gang 2

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出版物信息: Optoelectronics Letters 10.1 (Jan 1, 2014): 24-26.

[ProQuest 文档链接](#)

摘要 (English): A new photolithography technique for 248 nm based on the interference of surface plasmon waves is proposed and demonstrated by using computer simulations. The basic structure consists of surface plasmon polariton (SPP) interference mask and multi-layer film superlens. Using the amplification effect of superlens on evanescent wave, the near field SPP interference pattern is imaged to the far field, and then is exposed on photo resist (PR). The simulation results based on finite difference time domain (FDTD) method show that the full width at half maximum (FWHM) of the interference pattern is about 19 nm when the p-polarization light from 248 nm source is vertically incident to the structure. Meanwhile, the focal depth is 150 nm for negative PR and 60 nm for positive PR, which is much greater than that in usual SPP photolithography. ©2014 Tianjin University of Technology and Springer-Verlag Berlin Heidelberg.

DOI: <http://dx.doi.org/10.1007/s11801-014-3172-1>

ISSN: 16731905

主题: Surface plasmon resonance (主要); Computer simulation; Electromagnetic wave polarization; Finite difference time domain method; Photolithography; Plasmons; Time domain analysis

出版商: Springer Verlag

出版日期: Jan 1, 2014

出版物名称: Optoelectronics Letters

出版物类型: Journal

分类: 711: Electromagnetic Waves; 712.1: Semiconducting Materials; 714.2: Semiconductor Devices and Integrated Circuits; 723.5: Computer Applications; 921: Applied Mathematics

分页: 24-26

创建日期: 2014-01-09

卷: 10

摘要语言: English

收录号: 20140217187293

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-01-13

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Amplification effects, Basic structure, Evanescent wave, Finite-difference time-domain (FDTD) methods, Interference mask, Interference patterns, Surface plasmon polaritons, Surface plasmon waves

标题: 248 nm imaging photolithography assisted by surface plasmon polariton interference

版权: Copyright 2014 Elsevier B.V., All rights reserved.

第一个可用: 2014-01-13

语言: 英文

Fingerprint ridge orientation field reconstruction using the best quadratic approximation by orthogonal polynomials in two discrete variables

作者: Bian, Weixin 1 ; Luo, Yonglong 1 ; Xu, Deqin 1 ; Yu, Qingying 1

1 Engineering Technology Research Center of Network and Information Security, School of Mathematics and Computer Science, Anhui Normal University, Wuhu 241003, China bw2353@mail.ahnu.edu.cn

出版物信息: Pattern Recognition 47.10 (Jan 1, 2014): 3304-3313.

[ProQuest 文档链接](#)

摘要 (English): This paper proposes a novel algorithm for reconstructing the fingerprint orientation field (FOF). The basic idea of the algorithm is to reconstruct the ridge orientation by using the best quadratic approximation by orthogonal polynomials in two discrete variables. We first estimate the local region orientation by the linear projection analysis (LPA) based on the vector set of point gradients, and then reconstruct the ridge orientation field using the best quadratic approximation by orthogonal polynomials in two discrete variables in the sine domain. In this way, we solve the problem that is difficult to accurately extract low quality fingerprint image orientation fields. The experiments with the database of FVC 2004 show that, compared to the state-of-the-art fingerprint orientation estimation algorithms, the proposed method is more accurate and more robust against noise, and is able to better estimate the FOF of low quality fingerprint images with large areas of noise. ©2014 Elsevier Ltd.

DOI: <http://dx.doi.org/10.1016/j.patcog.2014.03.033>

ISSN: 00313203

主题: Approximation algorithms (主要); Biometrics; Orthogonal functions

出版商: Elsevier Ltd

出版日期: Jan 1, 2014

出版物名称: Pattern Recognition

出版物类型: Journal

分类: 461: Bioengineering; 723: Computer Software, Data Handling and Applications; 732: Control Devices; 921: Applied Mathematics

分页: 3304-3313

创建日期: 2014-06-23

卷: 47

摘要语言: English

收录号: 20142517843502

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-29

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Discrete orthogonal polynomials, Fingerprint images, Fingerprint orientation, Fingerprint orientation fields, Fingerprint ridges, Linear projections, Orthogonal polynomial, Quadratic approximation, 2D

discrete orthogonal polynomials, Composite window, Fingerprint orientation field, Fingerprint orientation reconstruction, Linear projection analysis

标题: Fingerprint ridge orientation field reconstruction using the best quadratic approximation by orthogonal polynomials in two discrete variables

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第一个可用: 2014-06-29

语言: 英文

Internal noise induced pattern formation and spatial coherence resonance for calcium signals of diffusively coupled cells

作者: Wang, Maosheng 1 ; Sun, Runzhi 1 ; Huang, Wanxia 1 ; Tu, Yubing 1

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出版物信息: Physica A: Statistical Mechanics and its Applications 393 (Jan 1, 2014): 519-526.

[ProQuest 文档链接](#)

摘要 (English): The effects of internal noise in a square-lattice Höfer calcium oscillation system have been studied numerically in the context of chemical Langevin equations. It was found that spatial pattern can be induced by internal noise and, interestingly, an optimal internal noise strength (or optimal cell size) exists which maximizes the spatial coherence of pattern, indicating the occurrence of spatial coherence resonance. The effects of control parameter and coupling strength on system's spatial coherence have also been investigated. We found that larger internal noise strength is needed to induce spatial pattern for a small control parameter or a stronger coupling strength, and spatial coherence can be enhanced by coupling. ©2013 Elsevier B.V. All rights reserved.

DOI: <http://dx.doi.org/10.1016/j.physa.2013.09.012>

ISSN: 03784371

主题: Differential equations (主要); Optimization

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Physica A: Statistical Mechanics and its Applications

出版物类型: Journal

分类: 921.2: Calculus; 921.5: Optimization Techniques

分页: 519-526

创建日期: 2013-11-01

卷: 393

摘要语言: English

收录号: 20134416934263

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2013-11-04

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Calcium oscillation, Chemical Langevin equation, Control parameters, Coupling strengths, Internal noise, Pattern formation, Spatial coherence, Spatial coherence resonance

标题: Internal noise induced pattern formation and spatial coherence resonance for calcium signals of diffusively coupled cells

版权: Copyright 2013 Elsevier B.V., All rights reserved.

第一个可用: 2013-11-04

语言: 英文

Nonlinear optical rectification in asymmetric quantum dots with an external static magnetic field

作者: Li, Xuechao 1 ; Zhang, Chaojin 2 ; Tang, Yongxin 1 ; Wang, Bing 1

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出版物信息: Physica E: Low-Dimensional Systems and Nanostructures 56 (Jan 1, 2014): 130-133.

[ProQuest 文档链接](#)

摘要 (English): The optical rectification (OR) coefficient in asymmetric quantum dots (QDs) with an external static magnetic field is theoretically investigated. Using the effective-mass approximation, we obtain the confined wave functions and energies of electrons in QDs. We also obtain the OR coefficient by the compact-density-matrix approach and the iterative method. The results of numerical calculations for the typical GaAs/AlGaAs QDs show that the OR coefficient depends strongly on the external static magnetic field, parameters of the asymmetric potential and radius of the QD. Moreover, the peak of the OR coefficient shifts with the magnetic field or the radius of the QD changing. ©2013 Elsevier B.V.

DOI: <http://dx.doi.org/10.1016/j.physe.2013.08.025>

ISSN: 13869477

主题: Semiconductor quantum dots (主要); Magnetic fields

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Physica E: Low-Dimensional Systems and Nanostructures

出版物类型: Journal

分类: 701.2: Magnetism, Basic Concepts and Phenomena; 714.2: Semiconductor Devices and Integrated Circuits

分页: 130-133

创建日期: 2013-10-08

卷: 56

摘要语言: English

收录号: 20134116825356

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2013-10-15

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Asymmetric potential, Compact-density-matrix approach, Effective mass approximation, External static magnetic, Nonlinear optical rectification, Numerical calculation, Optical rectifications, Quantum dot, Magnetic field

标题: Nonlinear optical rectification in asymmetric quantum dots with an external static magnetic field

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第一个可用: 2013-10-15

语言: 英文

The channel radius and energy of cloud-to-ground lightning discharge plasma with multiple return strokes

作者: Wang, Xuejuan 1 ; Yuan, Ping 1 ; Cen, Jianyong 1 ; Liu, Jianguo 2 ; Li, Yajun 3

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出版物信息: Physics of Plasmas 21.3 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): Using the spectra of a cloud-to-ground (CG) lightning flash with multiple return strokes and combining with the synchronous radiated electrical field information, the linear charge density, the channel radius, the energy per unit length, the thermal energy, and the energy of dissociation and ionization in discharge channel are calculated with the aid of an electrodynamic model of lightning. The conclusion that the initial radius of discharge channel is determined by the duration of the discharge current is confirmed. Moreover, the correlativity of several parameters has been analyzed first. The results indicate that the total intensity of spectra is positive correlated to the channel initial radius. The ionization and thermal energies have a linear relationship, and the dissociation energy is correlated positively to the ionization and thermal energies, the energy per unit length is in direct proportion to the square of initial radius in different strokes of one CG lightning. ©2014 AIP Publishing LLC.

DOI: <http://dx.doi.org/10.1063/1.4867381>

ISSN: 1070664X

主题: Clouds (主要); Ionization; Lightning protection; Thermal energy

出版商: American Institute of Physics Inc.

出版日期: Jan 1, 2014

出版物名称: Physics of Plasmas

出版物类型: Journal

分类: 443: Meteorology; 443.1: Atmospheric Properties; 452: Sewage and Industrial Wastes Treatment; 472: Ocean Engineering; 615: Thermoelectric, Magnetohydrodynamic and Other Power Generators; 702: Electric Batteries and Fuel Cells; 802.2: Chemical Reactions

创建日期: 2014-03-20

卷: 21

摘要语言: English

收录号: 20141217486445

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-26

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Cloud-to-ground lightning, Discharge channel, Discharge currents, Dissociation energies, Electrical field, Electrodynamic modeling, Linear relationships, Multiple returns

标题: The channel radius and energy of cloud-to-ground lightning discharge plasma with multiple return strokes

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第一个可用: 2014-03-26

语言: 英文

A novel deadline assignment strategy for a large batch of parallel tasks with soft deadlines in the cloud

作者: Liu, Xiao 1 ; Wang, Dingxian 1 ; Yuan, Dong 2 ; Yang, Yun 3

1 Software Engineering Institute, East China Normal University, Shanghai, China xliu@sei.ecnu.edu.cn ; dingxianwang@gmail.com 2 Faculty of Information and Communication Technology, Swinburne University of Technology, Melbourne, Australia dyuan@swin.edu.au 3 Faculty of Information and Communication Technology, Swinburne University of Technology, Melbourne, Australia, School of Computer Science and Technology, Anhui University, Hefei, China yyang@swin.Edu.au

出版物信息: Proceedings - 2013 IEEE International Conference on High Performance Computing and Communications, HPCC 2013 and 2013 IEEE International Conference on Embedded and Ubiquitous Computing, EUC 2013 (Jan 1, 2014): 51-58.

[ProQuest 文档链接](#)

摘要 (English): Deadline assignment is to assign each subtask composing a distributed task with a local deadline such that the global deadline can be met. Today's real-time systems often need to handle hundreds or even thousands of concurrent customer (or service) requests. Therefore, deadline assignment is becoming an increasingly challenging issue with a large number of parallel and distributed subtasks. However, most conventional strategies are designed to deal with a single independent task rather than a batch of many parallel tasks in a shared resource environment such as cloud computing. To address such an issue, in this paper, instead of assigning local deadline for each subtask, we propose a novel strategy which can efficiently assign local throughput constraints for a batch of parallel tasks at any time point along the system timeline. The basis of this strategy is a novel throughput consistency model which can measure the probability of on-time completion at any given time point. The experimental results demonstrate that our strategy can achieve significant time reduction in deadline assignment and achieve the most 'consistency' between global and local deadlines compared with other representative strategies. ©2013 IEEE.

DOI: <http://dx.doi.org/10.1109/HPCC.and.EUC.2013.17>

主题: Throughput (主要); Cloud computing; Real time systems; Ubiquitous computing

出版商: IEEE Computer Society

出版日期: Jan 1, 2014

出版物名称: Proceedings - 2013 IEEE International Conference on High Performance Computing and Communications, HPCC 2013 and 2013 IEEE International Conference on Embedded and Ubiquitous Computing, EUC 2013

出版物类型: Conference Papers & Proceedings

分类: 722.3: Data Communication, Equipment and Techniques; 722.4: Digital Computers and Systems; 913.3: Quality Assurance and Control

分页: 51-58

创建日期: 2014-07-16

摘要语言: English

收录号: 20142917937840

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Conference Paper

更新: 2014-07-23

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Consistency model, Deadline assignments, Distributed tasks, Independent tasks, Novel strategies, Parallel task, Shared resources, Throughput constraints, Deadline Assignment, Parallel Tasks

标题: A novel deadline assignment strategy for a large batch of parallel tasks with soft deadlines in the cloud

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第一个可用: 2014-07-23

语言: 英文

Logistics scheduling based on cloud business workflows

作者: Xu, Rongbin 1 ; Liu, Xiao 2 ; Xie, Ying 3 ; Wang, Futian 1 ; Zhang, Cheng 1 ; Yang, Yun 4

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出版物信息: Proceedings of the 2014 IEEE 18th International Conference on Computer Supported Cooperative Work in Design, CSCWD 2014 (Jan 1, 2014): 29-34.

[ProQuest 文档链接](#)

摘要 (English): Due to fast development of e-commerce, logistics, network and cloud computing, many businesses have changed their traditional production and sale patterns. This brings big opportunities and challenges to logistics. Among the process of logistics, delivery is a key issue. This paper mainly focuses on logistics scheduling based on cloud business workflows. A constrained Dijkstra algorithm is proposed to select

an optimal route for logistics transportation with various parameters. We then put forward a distribution logistics scheduling algorithm to solve tracking large numbers of expresses based on business workflows. The simulation indicates the effectiveness of our two novel algorithms. ©2014 IEEE.

DOI: <http://dx.doi.org/10.1109/CSCWD.2014.6846812>

主题: Scheduling (主要); Algorithms; Cloud computing; Interactive computer systems; Transportation routes

出版商: IEEE Computer Society

出版日期: Jan 1, 2014

出版物名称: Proceedings of the 2014 IEEE 18th International Conference on Computer Supported Cooperative Work in Design, CSCWD 2014

出版物类型: Conference Papers & Proceedings

分类: 431: Air Transportation; 432: Highway Transportation; 433: Railroad Transportation; 434: Waterway Transportation; 722.4: Digital Computers and Systems; 723: Computer Software, Data Handling and Applications; 912.2: Management; 921: Applied Mathematics

分页: 29-34

创建日期: 2014-07-29

摘要语言: English

收录号: 20143117994165

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文档状态: New

文档类型: Conference Paper

更新: 2014-08-04

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Business workflow, Business workflows, Dijkstra algorithms, Distribution logistics, Logistics scheduling, Logistics transportations, Novel algorithm, Optimal routes, constrained Dijkstra algorithm

标题: Logistics scheduling based on cloud business workflows

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第一个可用: 2014-08-04

语言: 英文

M 2 -factor for the partially coherent elegant Laguerre-Gaussian beam propagating through the turbulent ocean

作者: Wang, B. 1 ; Yuan, Y.S. 1 ; Cui, Z.F. 1 ; Qu, J. 1

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出版物信息: Progress in Electromagnetics Research Symposium (Jan 1, 2014): 2521-2524.

[ProQuest 文档链接](#)

摘要 (English): On account of the extended Huygens-Fresnel principle and the second order moments of the Wigner distribution function, the analytical expression of the beam propagation factor (M^2 -factor) for partially coherent elegant Laguerre-Gaussian (PCELG) beam has been theoretically derived. The corresponding analysis and discussions reveal that the M^2 -factor of the PCELG beam in oceanic turbulence vary with changes in parameters of the beam and the oceanic turbulence. The acquired results may have some certain reference value for laser tracking, remote sensing and optical communication under the water.

ISSN: 15599450

主题: Gaussian beams (主要); Distribution functions; Optical communication; Turbulence

出版商: Electromagnetics Academy

出版日期: Jan 1, 2014

出版物名称: Progress in Electromagnetics Research Symposium

出版物类型: Conference Papers & Proceedings

分类: 443.1: Atmospheric Properties; 711: Electromagnetic Waves; 717.1: Optical Communication Systems; 922.1: Probability Theory

分页: 2521-2524

创建日期: 2014-12-01

摘要语言: English

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文档状态: Revised

文档类型: Conference Paper

更新: 2014-12-07

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Analytical expressions, Beam propagation factor, Extended Huygens-Fresnel principles, Laguerre Gaussian beams, Oceanic turbulence, Partially coherent, Second order moment, Wigner distribution functions

标题: M^2 -factor for the partially coherent elegant Laguerre-Gaussian beam propagating through the turbulent ocean

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第一个可用: 2014-12-07

语言: 英文

Multipartite concurrence for X states under decoherence

作者: Shi, Jia-Dong 1 ; Wu, Tao 2 ; Song, Xue-Ke 1 ; Ye, Liu 1

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出版物信息: Quantum Information Processing 13.4 (Jan 1, 2014): 1045-1056.

[ProQuest 文档链接](#)

摘要 (English): In this paper, the dynamics evolution of multipartite entanglement for each qubit interacting with a local decoherence channel, such as phase damping, phase flip, bit flip and bit-phase flip channel, is investigated. It is shown that the initial concurrence monotonously decreases much faster with the number of qubit increases and there exists entanglement sudden death (ESD) only for the bit flip channel and bit-phase flip channels. Meanwhile, the time of ESD decreases with the increases of the number of qubit in the multipartite system. ©2013 Springer Science+Business Media New York.

DOI: <http://dx.doi.org/10.1007/s11128-013-0710-x>

ISSN: 15700755

主题: Quantum entanglement (主要); Electrostatic devices; Electrostatic discharge; Quantum computers

出版商: Springer New York LLC

出版日期: Jan 1, 2014

出版物名称: Quantum Information Processing

出版物类型: Journal

分类: 704: Electric Components and Equipment; 714: Electronic Components and Tubes; 715: Electronic Equipment, General Purpose and Industrial; 931.4: Quantum Theory

分页: 1045-1056

创建日期: 2014-04-01

卷: 13

摘要语言: English

收录号: 20141417530455

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-04-06

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Bit-flips, Decoherence, Entanglement sudden death, Multipartite concurrence, Multipartite entanglements, Multipartite systems, Phase damping, X states

标题: Multipartite concurrence for X states under decoherence

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第一个可用: 2014-04-06

语言: 英文

Efficient entanglement purification via quantum communication bus

作者: Zhu, Meng-Zheng 1 ; Ye, Liu 2

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出版物信息: Quantum Information Processing 13.6 (Jan 1, 2014): 1397-1412.

[ProQuest 文档链接](#)

摘要 (English): A scheme is proposed to implement entanglement purification for two remote less entangled photons using robust continuous variable coherent modes, called as quantum communication bus (qubus), rather than consuming expensive ancilla single-photon sources. The qubus beams in the coherent states provide for the natural communication in the purification protocol, instead of the classical communication between the distant photons. Weak cross-Kerr nonlinearities, qubus beams and quantum non-demolition (QND) photon-number-resolving measurement are utilized for implementing deterministic entanglement purification. The core element to realize the QND measurement is Kerr nonlinearity. The necessary QND measurement in the present scheme is not an extra, very difficult, addition to the present protocol, but is taken care of by a phase measurement. The entanglement purification protocol (EPP) can obtain a maximally entangled pair with only one step, instead of improving the fidelity of less entangled pairs by performing continuous indefinite iterative purification procedure. The total success probability and fidelity of the present purification scheme can approach unit in principle. In addition, we investigate photon loss of the qubus beams during the transmission and decoherence effects in the entanglement purification caused by such a photon loss. ©2014 Springer Science+Business Media New York.

DOI: <http://dx.doi.org/10.1007/s11128-014-0735-9>

ISSN: 15700755

主题: Quantum entanglement (主要); Communication; Optical Kerr effect; Phase measurement; Photons; Purification; Quantum communication

出版商: Springer New York LLC

出版日期: Jan 1, 2014

出版物名称: Quantum Information Processing

出版物类型: Journal

分类: 716: Electronic Equipment, Radar, Radio and Television; 741.1: Light and Optics; 802.3: Chemical Operations; 931.4: Quantum Theory; 942.2: Electric Variables Measurements

分页: 1397-1412

创建日期: 2014-07-16

卷: 13

摘要语言: English

收录号: 20142917941250

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-23

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Classical communication, Cross-Kerr nonlinearities, Entanglement, Entanglement purification, Entanglement purification protocol, Purification procedures, Purification protocol, Quantum non-demolition, Quantum communications

标题: Efficient entanglement purification via quantum communication bus

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第一个可用: 2014-07-23

语言: 英文

Preparation of superfine calcium carbonate microspheres

作者: Zhang, Qun 1 ; Zhu, Wan-Hua 1 ; Wang, Xu-Wu 1 ; Zhang, Qing 1

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出版物信息: Rengong Jingti Xuebao/Journal of Synthetic Crystals 43.2 (Jan 1, 2014): 438-442+449.

[ProQuest 文档链接](#)

摘要 (English): The superfine calcium carbonate microspheres were prepared by emulsion liquid membrane method combining with precipitation method. The effects of different reaction parameters on the morphology of

calcium carbonate microspheres were investigated. The obtained samples were characterized by X-ray Diffraction(XRD), field emission scanning electron microscope(FESEM), Fourier transform infrared spectroscopy(FTIR) and laser particle size instrument. The results indicate that calcium carbonate microspheres with the size of 5 μm were prepared when adding 4 mL Tween-80 and 0.5 g PVP to the reaction system; The phases and the morphologies of calcium carbonate materials are closely related with the volume ratios of Tween-80 as well as mass ratios of PVP.

ISSN: 1000985X

主题: Calcium carbonate (主要); Emulsification; Fourier transform infrared spectroscopy; Liquid membranes; Microspheres; Morphology; Precipitation (chemical); X ray diffraction

出版商: Chinese Ceramic Society

出版日期: Jan 1, 2014

出版物名称: Rengong Jingti Xuebao/Journal of Synthetic Crystals

出版物类型: Journal

分类: 801: Chemistry; 802.1: Chemical Plants and Equipment; 802.3: Chemical Operations; 804: Chemical Products Generally; 818: Rubber and Elastomers; 931.3: Atomic and Molecular Physics; 951: Materials Science

分页: 438-442+449

创建日期: 2014-04-09

卷: 43

摘要语言: English

收录号: 20141517560069

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-04-13

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Calcium-carbonate materials, Emulsion liquid membrane (ELM), Field emission scanning electron microscopes, Laser particles, Precipitation methods, Reaction parameters, Reaction system, Superfine calcium carbonate, Emulsion liquid membrane method, Microsphere, Precipitation method

标题: Preparation of superfine calcium carbonate microspheres

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第一个可用: 2014-04-13

语言: 英文

One-pot hydrothermal synthesis of BiPO₄/BiVO₄ with enhanced visible-light photocatalytic activities for methylene blue degradation

作者: Lin, Haili 1 ; Ye, Huifang 2 ; Chen, Shifu 2 ; Chen, Yong 3

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出版物信息: RSC Advances 4.21 (Jan 1, 2014): 10968-10974.

[ProQuest 文档链接](#)

摘要 (English): Novel composite BiPO₄/BiVO₄ photocatalysts with different amounts of BiPO₄ were synthesized by a simple one-pot hydrothermal method at pH = 0.5. The obtained photocatalysts were systematically characterized using X-ray powder diffraction (XRD), Fourier-transform infrared spectroscopy (FT-IR), scanning electron microscopy (SEM), energy dispersive X-ray spectroscopy (EDS), transmission electron microscopy (TEM), high-resolution transmission electron microscopy (HRTEM), selected area electron diffraction (SAED), X-ray photoelectron spectroscopy (XPS) and UV-vis diffuse reflectance spectroscopy (DRS). The photocatalytic activities of BiPO₄/BiVO₄ were evaluated by the degradation of methylene blue (MB), methyl orange (MO) and rhodamine B (RhB) under visible light ($\lambda > 400$ nm). The results showed that all of the BiPO₄/BiVO₄ composites exhibited much higher photocatalytic activities than pure BiVO₄ and BiPO₄. Among the composites, 10% BiPO₄/BiVO₄ could degrade 92.1% MB after 5 h illumination and possessed the best photocatalytic activity. Meanwhile, the k value of 10% BiPO₄/BiVO₄ was 0.503 h⁻¹, which was twice that of pure BiVO₄. The enhanced photocatalytic activity could be mainly ascribed to the suitable BiPO₄/BiVO₄ heterojunction interface which could effectively promote the separation of photoinduced electron-hole pairs. Moreover, the radical scavengers experiments demonstrated that O₂⁻ and h⁺ were the main reactive species for MB degradation under visible light. ©2014 The Royal Society of Chemistry.

DOI: <http://dx.doi.org/10.1039/c3ra45288c>

主题: Complexation (主要); Aromatic compounds; Azo dyes; Dyes; Electron diffraction; Heterojunctions; Hydrothermal synthesis; Photocatalysis; Photocatalysts; Photoelectrons; Scanning electron microscopy; Transmission electron microscopy; X ray photoelectron spectroscopy; X ray powder diffraction; X ray spectroscopy

出版商: Royal Society of Chemistry

出版日期: Jan 1, 2014

出版物名称: RSC Advances

出版物类型: Journal

分类: 711: Electromagnetic Waves; 714.2: Semiconductor Devices and Integrated Circuits; 741.1: Light and Optics; 741.3: Optical Devices and Systems; 801: Chemistry; 802.2: Chemical Reactions; 803: Chemical Agents and Basic Industrial Chemicals; 804.1: Organic Compounds; 931.3: Atomic and Molecular Physics;

932.2: Nuclear Physics

分页: 10968-10974

创建日期: 2014-03-03

卷: 4

摘要语言: English

收录号: 20140917406402

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-05

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Energy dispersive X ray spectroscopy, Fourier transform infrared spectroscopy (FT-IR), Heterojunction interfaces, Methylene blue degradations, One-pot hydrothermal synthesis, Selected area electron diffraction, UV-Vis diffuse reflectance spectroscopy, Visible-light photocatalytic activities

标题: One-pot hydrothermal synthesis of $\text{BiPO}_4/\text{BiVO}_4$ with enhanced visible-light photocatalytic activities for methylene blue degradation

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第一个可用: 2014-03-05

语言: 英文

Electronic structure engineering in chemically modified ultrathin ZnO nanofilms via a built-in heterointerface

作者: Guo, Hongyan 1 ; Lu, Ning 2 ; Dai, Jun 3 ; Zeng, Xiao Cheng 4 ; Wu, Xiaojun 5 ; Yang, Jinlong 6

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Engineering, Hefei Anhui 230026, China, School of Chemistry and Materials Science, Hefei National Laboratory of Physical Science at the Microscale, University of Science and Technology of China, Hefei Anhui 230026, China, Synergetic Innovation Center of Quantum Information and Quantum Physics, University of Science and Technology of China, Hefei Anhui 230026, China xjwu@ustc.edu.cn 6 School of Chemistry and Materials Science, Hefei National Laboratory of Physical Science at the Microscale, University of Science and Technology of China, Hefei Anhui 230026, China, Synergetic Innovation Center of Quantum Information and Quantum Physics, University of Science and Technology of China, Hefei Anhui 230026, China

出版物信息: RSC Advances 4.36 (Jan 1, 2014): 18718-18723.

[ProQuest 文档链接](#)

摘要 (English): Zinc oxide, a typical semiconducting material crystallizing in either hexagonal wurtzite or cubic zinc blende structure in the bulk, exhibits a graphite-like structure in ultrathin nanofilms with a few layers. On the basis of first-principles calculations, we show that the ultrathin ZnO nanofilms regain their bulk structures with either surface hydrogenation or fluorination. In particular, a heterointerface containing only Zn-Zn or O-O bonds can be built spontaneously in ultrathin ZnO nanofilms depending on their surface chemical modification, dividing the nanofilm into two different domains. An extended impurity state, constrained in the heterointerface, is created around the Fermi energy level. The ZnO nanofilms with a Zn-Zn heterointerface are metallic, whereas those with an O-O heterointerface are still semiconducting. The built-in heterointerface presents a novel channel for charge collection and transport in ZnO nanofilms for their potential applications in electronic and optoelectronic devices. ©2014 the Partner Organisations.

DOI: <http://dx.doi.org/10.1039/c4ra02517b>

主题: Zinc oxide (主要); Calculations; Chemical modification; Electronic structure; Zinc; Zinc sulfide

出版商: Royal Society of Chemistry

出版日期: Jan 1, 2014

出版物名称: RSC Advances

出版物类型: Journal

分类: 546.3: Zinc and Alloys; 721: Computer Circuits and Logic Elements; 723: Computer Software, Data Handling and Applications; 802.2: Chemical Reactions; 804.2: Inorganic Compounds; 921: Applied Mathematics; 931.1: Mechanics

分页: 18718-18723

创建日期: 2014-05-06

卷: 4

摘要语言: English

收录号: 20141917690491

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-05-12

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Chemically modified, First-principles calculation, Graphite-like structures, Hexagonal wurtzite, Semiconducting materials, Structure engineering, Surface chemical modifications, Zinc-blende structures

标题: Electronic structure engineering in chemically modified ultrathin ZnO nanofilms via a built-in heterointerface

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第一个可用: 2014-05-12

语言: 英文

Crystal structures, photophysical properties and significantly different two-photon excited fluorescence of the trans- and cis-oligo(phenylene vinylene)

作者: Liu, Zhaodi 1 ; Zhang, Ruilong 1 ; Zhang, Qiong 1 ; Ding, Hongjuan 2 ; Wang, Chuankui 2 ; Li, Shengli 1 ; Zhou, Hongping 1 ; Zhang, Shengyi 1 ; Wu, Jieying 1 ; Tian, Yupeng 3

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出版物信息: RSC Advances 4.6 (Jan 1, 2014): 2620-2623.

[ProQuest 文档链接](#)

摘要 (English): The crystal structures and two-photon absorbing properties of trans-/cis-oligo(phenylene vinylene) derivatives were reported for the first time. Both experimental and theoretical results revealed that the two-photon absorption cross sections of them largely depend on their conformations. ©2014 The Royal Society of Chemistry.

DOI: <http://dx.doi.org/10.1039/c3ra43126f>

主题: Aromatic compounds (主要); Photons; Two photon processes

出版商: Royal Society of Chemistry

出版日期: Jan 1, 2014

出版物名称: RSC Advances

出版物类型: Journal

分类: 741.1: Light and Optics; 804.1: Organic Compounds

分页: 2620-2623

创建日期: 2013-12-26

卷: 4

摘要语言: English

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数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2013-12-30

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Absorbing properties, Photophysical properties, Two photon, Two-photon absorption cross section, Two-photon excited fluorescence

标题: Crystal structures, photophysical properties and significantly different two-photon excited fluorescence of the trans- and cis-oligo(phenylene vinylene)

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第一个可用: 2013-12-30

语言: 英文

Microwave irradiated synthesis of 2-bromo(chloro)indoles via intramolecular cyclization of 2-(gem-dibromo(chloro)vinyl)anilines in the presence of TBAF under metal-free conditions

作者: Wang, Min 1 ; Li, Pinhua 2 ; Chen, Wei 1 ; Wang, Lei 3

1 Department of Chemistry, Huaibei Normal University, Huaibei Anhui 235000, China 2 Department of Chemistry, Huaibei Normal University, Huaibei Anhui 235000, China, Key Laboratory of Synthetic Chemistry of Natural Substances, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai 200032, China 3 Department of Chemistry, Huaibei Normal University, Huaibei Anhui 235000, China, State Key Laboratory of Organometallic Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai 200032, China leiwang@chnu.edu.cn

出版物信息: RSC Advances 4.51 (Jan 1, 2014): 26918-26923.

[ProQuest 文档链接](#)

摘要 (English): 2-Bromo(chloro)indoles were readily and efficiently prepared through TBAF-promoted intramolecular cyclization of 2-(gem-dibromo(chloro)vinyl)anilines in excellent yields under metal-free and microwave irradiation conditions. This journal is ©the Partner Organisations 2014.

DOI: <http://dx.doi.org/10.1039/c4ra00603h>

主题: Cyclization (主要); Aniline

出版商: Royal Society of Chemistry

出版日期: Jan 1, 2014

出版物名称: RSC Advances

出版物类型: Journal

分类: 802.2: Chemical Reactions; 804.1: Organic Compounds

分页: 26918-26923

创建日期: 2014-07-08

卷: 4

摘要语言: English

收录号: 20142817915153

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-13

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Intramolecular cyclizations, Metal-free conditions, Microwave-irradiated synthesis

标题: Microwave irradiated synthesis of 2-bromo(chloro)indoles via intramolecular cyclization of 2-(gem-dibromo(chloro)vinyl)anilines in the presence of TBAF under metal-free conditions

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第一个可用: 2014-07-13

语言: 英文

Preparation of interlayer surface tailored protonated double-layered perovskite $\text{H}_2\text{CaTa}_2\text{O}_7$ with n-alcohols, and their photocatalytic activity

作者: Wang, Yan 1 ; Wang, Caihua 2 ; Wang, Linlin 3 ; Hao, Qiaoyan 3 ; Zhu, Xiaobo 3 ; Chen, Xiuhua 3 ; Tang, Kaibin 3

1 Division of Nanomaterials and Chemistry, Hefei National Laboratory for Physical Sciences at the Microscale, University of Science and Technology of China, Hefei 230026, China, State Key Laboratory of Pulsed Power Laser Technology, Electronic Engineering Institute, 460 Huangshan Road, Hefei Anhui 230037, China 2 Division of Nanomaterials and Chemistry, Hefei National Laboratory for Physical Sciences at the Microscale, University of Science and Technology of China, Hefei 230026, China, School of Chemistry and Chemical Engineering, Fuyang Normal College, Fuyang 236041, China 3 Division of Nanomaterials and Chemistry, Hefei

National Laboratory for Physical Sciences at the Microscale, University of Science and Technology of China,
Hefei 230026, China kbtang@ustc.edu.cn

出版物信息: RSC Advances 4.8 (Jan 1, 2014): 4047-4054.

[ProQuest 文档链接](#)

摘要 (English): N-alkyl chains have been successfully grafted into the interlayer space of a Ruddlesden-Popper-type double-layered perovskite, $H_2CaTa_2O_7$, via a hydrolysis-esterification process. During the chemical graft process, the parent layered structure is well preserved with magnifying the tailored c lattice parameter. IR and solid-state ^{13}C CP/MAS NMR spectra indicated that oxyalkyl chains were successfully introduced. Thermogravimetric curves of the products exhibit the amount of n-alkoxyl groups per perovskite unit $[CaTa_2O_7]$ is approximated to 1. A linear relationship with a slope of 0.478 nm per carbon atom is observed between the c lattice parameter and the number of carbon atoms in the n-alkyl chains, which illustrates that the n-alkyl chains form bilayers with a tilt angle of 70° . The photocatalytic activities of these products are also discussed. The 1-octadecanol derivative of $H_2CaTa_2O_7$ is found to serve as an excellent catalyst for the catalytic reduction of rhodamine B (RhB) and methyl orange (MO), which is set as a novel example of an application of this tailored n-propoxy derivative of $H_2CaTa_2O_7$. ©2013 The Royal Society of Chemistry.

DOI: <http://dx.doi.org/10.1039/c3ra44623a>

主题: Perovskite (主要); Azo dyes; Carbon; Dyes; Grafting (chemical); Lattice constants; Nuclear magnetic resonance spectroscopy; Photocatalysis; Thermogravimetric analysis

出版商: Royal Society of Chemistry

出版日期: Jan 1, 2014

出版物名称: RSC Advances

出版物类型: Journal

分类: 932.2: Nuclear Physics; 815.1: Polymeric Materials; 804.2: Inorganic Compounds; 933.1.1: Crystal Lattice; 804: Chemical Products Generally; 801: Chemistry; 741.1: Light and Optics; 803: Chemical Agents and Basic Industrial Chemicals

分页: 4047-4054

创建日期: 2013-12-27

卷: 4

摘要语言: English

收录号: 20135217143257

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2013-12-30

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Catalytic reduction, Double-layered perovskites, Interlayer surface, Layered Structures, Linear relationships, Number of carbon atoms, Photocatalytic activities, Thermogravimetric curve

标题: Preparation of interlayer surface tailored protonated double-layered perovskite $\text{H}_2\text{CaTa}_2\text{O}_7$ with n-alcohols, and their photocatalytic activity

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第一个可用: 2013-12-30

语言: 英文

ZnO nanorods/Pt and ZnO nanorods/Ag heteronanostructure arrays with enhanced photocatalytic degradation of dyes

作者: Wu, Zhengcui 1 ; Xue, Yejing 1 ; Wang, Huan 1 ; Wu, Yaqin 1 ; Yu, Hao 1

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出版物信息: RSC Advances 4.103 (Jan 1, 2014): 59009-59016.

[ProQuest 文档链接](#)

摘要 (English): Semiconductor-metal heteronanostructures provide an effective way to tailor the properties of semiconductor photocatalysts through promoting interfacial charge-transfer processes and enhancing charge separation. Here, a zinc substrate strategy has been developed for the solution-phase synthesis of well-defined ZnO nanorods/Pt and ZnO nanorods/Ag heteronanostructure arrays in high yields. The fabricated heteronanostructure arrays show significant structure-induced enhancements of photodegradation for rhodamine B and high photocatalytic stabilities, which are very attractive for real photocatalytic applications.

This journal is

DOI: <http://dx.doi.org/10.1039/c4ra10753e>

主题: Zinc oxide (主要); Charge transfer; Dyes; Nanorods; Photodegradation; Synthesis (chemical)

出版商: Royal Society of Chemistry

出版日期: Jan 1, 2014

出版物名称: RSC Advances

出版物类型: Journal

分类: 761: Nanotechnology; 802.2: Chemical Reactions; 803: Chemical Agents and Basic Industrial Chemicals; 804.2: Inorganic Compounds; 933: Solid State Physics

分页: 59009-59016

创建日期: 2014-12-01

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摘要语言: English

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文档类型: Article

更新: 2014-12-07

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Charge separations, Hetero-nanostructures, Interfacial charge, Photo catalytic degradation, Photocatalytic application, Semiconductor metals, Semiconductor photocatalyst, Solution phase synthesis

标题: ZnO nanorods/Pt and ZnO nanorods/Ag heteronanostructure arrays with enhanced photocatalytic degradation of dyes

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第一个可用: 2014-12-07

语言: 英文

Charge-transfer metal-organic frameworks based on CuCN architecture units: Crystal structures, luminescence properties and theoretical investigations

作者: Huang, Rong-Yi 1 ; Xue, Chen 1 ; Zhu, Chang-Hai 1 ; Wang, Zhu-Qing 1 ; Xu, Heng 1 ; Ren, Xiao-Ming 2

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出版物信息: RSC Advances 4.105 (Jan 1, 2014): 61200-61209.

[ProQuest 文档链接](#)

摘要 (English): Four CuCN complexes, namely $\text{Cu}_4(\text{CN})_4(\text{bix})_2$ (1), $\text{Cu}_2(\text{CN})_2(\text{bmimb})$ (2), $\text{Cu}_2(\text{CN})_2(\text{bimb})$ (3) and $\text{Cu}_3(\text{CN})_3(\text{bimb})$ (4), have been prepared via the synchronous redox and self-assembly reaction of $\text{Cu}(\text{NO}_3)_2$, $\text{K}_4[\text{Fe}(\text{CN})_6]$ and three structurally related flexible bis(imidazole) ligands, 1,4-bis(imidazol-1-ylmethyl)benzene (bix), 1,4-bis(2-methylimidazol-1-ylmethyl)benzene (bmimb) and 4,4'-bis(1-imidazolyl-1-ylmethyl)biphenyl (bimb) under solvothermal conditions. Although all prepared complexes contain one-dimensional CuCN subchains, they have different structures of 2_1 helical chain, meso-helical chain, 2_1 -helical chain and zigzag chain for 1, 2, 3 and 4, respectively. Complex 1 presents a three-dimensional framework with (10, 3)-d (utp) topology and exhibits an interesting five-fold interpenetration structure attributed as Class Ia type. Moreover, the five-fold entangled network is turned into an unprecedented three-dimensional binodal (3,6)-connected self-penetrated network via the $\text{Cu}\cdots\text{Cu}$ bond interactions. Most interestingly, 2 and 3 are a pair of isomers, and also generate a three-dimensional uninodal (10, 3) network with ThSi_2 and utq topology, respectively, which all display an interesting three-fold interpenetration, and also belong to Class Ia type. Complex 4 displays a distorted two-dimensional (6, 3) topology layer, and further forms a three-dimensional supramolecular structure by weak

π - π interactions. It is indicated that the organic ligands play a crucial role in the final product structures as well as the solvents. Meanwhile, the complexes present strong green ($\lambda_{\text{max}} = 553$ (1), 565 (2), 565 (3) and 563 nm (4)) photoluminescence in the solid state at room temperature. The theoretical calculations show that the intense green experimental band can be assigned to a combination of the cyanide group to copper(i) center and cyanide group to cyanide group charge transfer transitions. Additionally, the thermal analyses show that complexes 1-4 possess high thermal stabilities.

DOI: <http://dx.doi.org/10.1039/c4ra11652f>

主题: Copper compounds (主要); Benzene; Chains; Charge transfer; Complex networks; Crystalline materials; Cyanides; Isomers; Ligands; Luminescence; Organometallics; Plants (botany); Self assembly; Thermoanalysis; Topology

出版商: Royal Society of Chemistry

出版日期: Jan 1, 2014

出版物名称: RSC Advances

出版物类型: Journal

分类: 461.9: Biology; 602.1: Mechanical Drives; 722: Computer Hardware; 741.1: Light and Optics; 801: Chemistry; 802.2: Chemical Reactions; 804.1: Organic Compounds; 804.2: Inorganic Compounds; 921.4: Combinatorial Mathematics, Includes Graph Theory, Set Theory; 933.1: Crystalline Solids

分页: 61200-61209

创建日期: 2014-12-08

卷: 4

摘要语言: English

收录号: 20144900278422

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-12-14

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): 1,4-bis(2-methylimidazol-1-ylmethyl)benzene, Charge transfer transitions, Metal organic framework, Solvothermal conditions, Supramolecular structure, Theoretical calculations, Theoretical investigations, Three-dimensional frameworks

标题: Charge-transfer metal-organic frameworks based on CuCN architecture units: Crystal structures, luminescence properties and theoretical investigations

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第一个可用: 2014-12-14

语言: 英文

Synthesis of polyhedral iron oxide nanocrystals bound by high-index facets

作者: Gao, Feng 1 ; Liu, Rongmei 2 ; Yin, Jingzhou 3 ; Lu, Qingyi 4

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出版物信息: Science China Chemistry 57.1 (Jan 1, 2014): 114-121.

[ProQuest 文档链接](#)

摘要 (English): High surface energy of high-index facets endows nanocrystals with high activities and thus promotes potential applications such as highly efficient catalysts, special optical, electrical and magnetic devices. But the high surface energy of the high-index facets usually drives them to grow faster than the other facets and finally disappear during the crystal growth, which leads the synthesis of nanocrystals with high-indexed facets exposed to be a great challenge. Herein, we introduced two routes to control the synthesis of α - Fe_2O_3 polyhedrons with different sets of high-index facets, one using different metal ions (Ni^{2+} , Cu^{2+} or Zn^{2+}) as structure-directing agents and the other applying polymer surfactant sodium carboxymethyl cellulose (CMC) as additive. The growth process of high-index α - Fe_2O_3 polyhedrons was also discussed and possible growth mechanism was proposed. ©2013 Science China Press and Springer-Verlag Berlin Heidelberg.

DOI: <http://dx.doi.org/10.1007/s11426-013-4973-y>

ISSN: 16747291

主题: Nanocrystals (主要); Copper; Interfacial energy; Metal ions

出版商: Science in China Press

出版日期: Jan 1, 2014

出版物名称: Science China Chemistry

出版物类型: Journal

分类: 533: Ore Treatment and Metal Refining; 544.1: Copper; 761: Nanotechnology; 931.2: Physical Properties of Gases, Liquids and Solids

分页: 114-121

创建日期: 2014-01-14

卷: 57

摘要语言: English

收录号: 20140317197422

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-01-20

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Controlled synthesis, Efficient catalysts, High-index facets, Iron oxide nanocrystals, polyhedrons, Polymer surfactants, Sodium carboxymethyl cellulose, Structure directing agents, α -Fe₂O₃, high-index facet

标题: Synthesis of polyhedral iron oxide nanocrystals bound by high-index facets

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第一个可用: 2014-01-20

语言: 英文

Synthesis, structure, and catalytic activity of rare-earth metal amides with a neutral pyrrolyl-functionalized indolyl ligand

作者: Yang, Song 1 ; Zhu, Xiancui 1 ; Zhou, Shuangliu 1 ; Wang, Shaowu 2 ; Feng, Zhijun 1 ; Wei, Yun 1 ; Miao, Hui 1 ; Guo, Liping 1 ; Wang, Fenhua 1 ; Zhang, Guangchao 1 ; Gu, Xiaoxia 1 ; Mu, Xiaolong 1

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出版物信息: Science China Chemistry 57.8 (Jan 1, 2014): 1090-1097.

[ProQuest 文档链接](#)

摘要 (English): The reactions of neutral pyrrolyl-functionalized indole with rare-earth metal amides $[(\text{Me}_3\text{Si})_2\text{N}]_3\text{RE}(\mu\text{-Cl})\text{Li}(\text{THF})_3$ produced the rare-earth metal complexes $[(\text{Me}_3\text{Si})_2\text{N}]_2\text{RE}([\eta^1:\mu\text{-}\eta^2\text{-}3\text{-(}2\text{-(N-CH}_3\text{)C}_4\text{H}_3\text{NCH=N-CH}_2\text{CH}_2\text{C}_8\text{H}_5\text{N})](\mu\text{-Cl})\text{Li}(\text{THF})$ (RE = Er, Y) having indolyl ligand η^1 bonded to rare-earth metal ion and η^2 bonded to lithium ion. The catalytic activities of these lanthanide amido complexes for addition of terminal alkynes to aromatic nitriles were explored. Results reveal that these complexes displayed a good catalytic activity for the addition reaction under mild conditions. ©2014 Science China Press and Springer-Verlag Berlin Heidelberg.

DOI: <http://dx.doi.org/10.1007/s11426-014-5150-7>

ISSN: 16747291

主题: Catalyst activity (主要); Addition reactions; Amides; Aromatic compounds; Chelation; Cyanides; Erbium; Hydrocarbons; Ligands; Lithium; Metal complexes; Metal ions; Silicon

出版商: Science in China Press

出版日期: Jan 1, 2014

出版物名称: Science China Chemistry

出版物类型: Journal

分类: 533: Ore Treatment and Metal Refining; 547.2: Rare Earth Metals; 549.1: Alkali Metals; 712.1.1: Single Element Semiconducting Materials; 801.4: Physical Chemistry; 802.2: Chemical Reactions; 804.1: Organic Compounds; 804.2: Inorganic Compounds

分页: 1090-1097

创建日期: 2014-08-18

卷: 57

摘要语言: English

收录号: 20143318073463

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-08-24

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Amido complexes, Aromatic nitriles, Lithium ions, Rare-earth metals, Terminal alkyne, ynone, aromatic nitrile, rare-earth metal

标题: Synthesis, structure, and catalytic activity of rare-earth metal amides with a neutral pyrrolyl-functionalized indolyl ligand

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第一个可用: 2014-08-24

语言: 英文

Synthesis of carborane-fused cyclobutenes and cyclobutanes

作者: Yuan, Yinggen 1 ; Ren, Shikuo 2 ; Qiu, Zaozao 3 ; Wang, Shaowu 4 ; Xie, Zuwei 5

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出版物信息: Science China Chemistry 57.8 (Jan 1, 2014): 1157-1163.

[ProQuest 文档链接](#)

摘要 (English): Transmetalation of carborane-fused zirconacycles to Cu(II) induces the C-C coupling reaction to form four-membered rings. This serves as a new efficient and general methodology for the generation of a series of carborane-fused cyclobutenes and cyclobutanes. A reaction mechanism involving transmetalation to Cu(II) and reductive elimination is proposed. ©2014 Science China Press and Springer-Verlag Berlin Heidelberg.

DOI: <http://dx.doi.org/10.1007/s11426-014-5112-0>

ISSN: 16747291

主题: Butenes (主要); Chemistry; Copper; Synthesis (chemical)

出版商: Science in China Press

出版日期: Jan 1, 2014

出版物名称: Science China Chemistry

出版物类型: Journal

分类: 544.1: Copper; 801: Chemistry; 802.2: Chemical Reactions; 804.1: Organic Compounds

分页: 1157-1163

创建日期: 2014-08-18

卷: 57

摘要语言: English

收录号: 20143318073451

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-08-24

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): C-C coupling reactions, Carboranes, Cyclobutanes, Cyclobutene, Four-membered rings, General methodologies, Reductive elimination, zirconacycle, carborane, cyclobutane

标题: Synthesis of carborane-fused cyclobutenes and cyclobutanes

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第一个可用: 2014-08-24

语言: 英文

A portable embedded drug precursor gas detection and identification device based on cataluminescence-based sensor array

作者: Sha, Wen 1 ; Cui, Danfeng 2 ; Li, Bo 3 ; Wang, Qihui 4 ; Wang, Yuhuai 4 ; Zheng, Chunhou 1

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出版物信息: Sensors and Actuators, B: Chemical 200 (Jan 1, 2014): 132-139.

[ProQuest 文档链接](#)

摘要 (English): A battery-operated, low-cost and portable embedded gas detection device consisting of a cataluminescence (CTL)-based sensor array was developed for the determination and identification of drug precursor gas. A total of 16 nanomaterials, including nano-sized metal oxides, decorated nanoparticles, and carbonates have been carefully selected as sensing elements of 4 ×4 sensor array. Dynamic and static analysis methods were utilized to characterize the performance of the portable gas detection device to 6 kinds of drug precursor gas. Each compound gave its unique CTL pattern after interaction with the sensor array, which can be employed for the detection and identification of drug precursor gas. Hierarchical cluster analysis (HCA) and principal component analysis (PCA) were used to analyze the CTL patterns. The PCA plots showed that the groups of 6 types of drug precursor gas were well classified. In addition, the patterns obtained at different working temperature and the quantitative determination of the portable device was investigated. The results showed that the linear ranges and detection limits of the portable device for the analytes were excellent. Illegal drug detection is of great importance for public security, our study demonstrated the portable gas detection device shows promising perspective for the recognition and discrimination of drug precursor gas. ©2014 Elsevier B.V.

DOI: <http://dx.doi.org/10.1016/j.snb.2014.04.059>

ISSN: 09254005

主题: Sensors (主要); Cluster analysis; Gas detectors; Gases; Hierarchical systems; Pattern recognition; Portable equipment; Principal component analysis; Sensor arrays; Static analysis

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Sensors and Actuators, B: Chemical

出版物类型: Journal

分类: 522: Gas Fuels; 704.2: Electric Equipment; 716: Electronic Equipment, Radar, Radio and Television; 723: Computer Software, Data Handling and Applications; 732: Control Devices; 801: Chemistry; 922: Statistical Methods; 922.2: Mathematical Statistics; 931.2: Physical Properties of Gases, Liquids and Solids; 961: Systems Science

分页: 132-139

创建日期: 2014-05-20

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摘要语言: English

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数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-05-25

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Cataluminescence, Detection and identifications, Detection limits, Hierarchical cluster analysis, Portable, Quantitative determinations, Static analysis method, Working temperatures, Sensor array

标题: A portable embedded drug precursor gas detection and identification device based on cataluminescence-based sensor array

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第一个可用: 2014-05-25

语言: 英文

Selective detection of picric acid using functionalized reduced graphene oxide sensor device

作者: Huang, Jiarui 1 ; Wang, Liyou 1 ; Shi, Chengcheng 1 ; Dai, Yijuan 1 ; Gu, Cuiping 1 ; Liu, Jinhui 2

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出版物信息: Sensors and Actuators, B: Chemical 196 (Jan 1, 2014): 567-573.

[ProQuest 文档链接](#)

摘要 (English): A reduced graphene oxide sensor device was fabricated through self-assembling graphene oxide onto an interdigitated gold microelectrode followed by electrochemically reducing. After modification with 1-pyrenebutyl-amino- β -cyclodextrin, the sensor exhibits high sensitivity and selectivity to picric acid. The sensor response (ΔI) increases linearly with concentration in the range of 5 μM to 215 μM . The sensitivity and detection limit of this method were estimated to be 0.00613 $\mu\text{A } \mu\text{M}^{-1}$ and 0.54 μM , respectively. The improved performance can be attributed to the unique structure of β -cyclodextrin (hydrophobic internal cavity and hydrophilic external surface), which endows its great tendency to integrate with hydrophobic $-\text{NO}_2$ groups of picric acid. Picric acid extracted from real water by ether can be determined effectively with this method, which demonstrates that the present method is sensitive and suitable for the determination of picric acid in drinking water sources. ©2014 Elsevier B.V.

DOI: <http://dx.doi.org/10.1016/j.snb.2014.02.050>

ISSN: 09254005

主题: Graphene (主要); Cyclodextrins; Hydrophobicity; Microelectrodes; Sensors

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Sensors and Actuators, B: Chemical

出版物类型: Journal

分类: 761: Nanotechnology; 801: Chemistry; 801.2: Biochemistry; 804: Chemical Products Generally; 804.1: Organic Compounds; 931.2: Physical Properties of Gases, Liquids and Solids

分页: 567-573

创建日期: 2014-03-26

卷: 196

摘要语言: English

收录号: 20141317511175

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-30

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Drinking water sources, External surfaces, Gold microelectrodes, High sensitivity, Internal cavities, Picric acid, Reduced graphene oxides, Selective detection, Reduced graphene oxide, Sensor, β -Cyclodextrin

标题: Selective detection of picric acid using functionalized reduced graphene oxide sensor device

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第一个可用: 2014-03-30

语言: 英文

On threshold of drought and flood disasters in Huaihe River basin

作者: Gao, Chao 1 ; Chen, Shi 2 ; Zhai, Jianqing 3 ; Zhang, Zhengtao 4 ; Liu, Qing 4

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出版物信息: Shuikexue Jinzhan/Advances in Water Science 25.1 (Jan 1, 2014): 36-44.

[ProQuest 文档链接](#)

摘要 (English): Based on the daily precipitation from 110 stations in the Huaihe River Basin during 1959-2008, the crop damage area due to drought and flood disasters from 1978 to 2008, the hazard factor from precipitation, the extent of damage for crops, and the spatial-temporal characteristics of disasters are analyzed. The thresholds of drought and flood disasters are calculated and the relationships between the thresholds of drought and flood disasters and the crop damage area are established. The result shows that first, the thresholds of drought and flood disasters can be calculated using the ratio of the cumulative event precipitation to the mean cumulative precipitation of 1959-2008. The ratio can well reflect the severity of flood and drought disasters of varying degrees, and can meet the requirements for analyzing flood and drought events in the study area. Second, the drought and flood disasters quantified by the calculated thresholds can reflect all degrees of drought and flood disasters and the affected areas. The thresholds and the affected areas have similar variation tendency. In particular, the threshold of drought disaster and the crop damage area are highly correlated as revealed by the high value of correlation coefficient (0.96). Thus, a model for forecasting the crop damage area is developed based on the threshold of drought disaster.

ISSN: 10016791

主题: Disasters (主要); Climate change; Crops; Drought; Floods; Watersheds

出版商: China Water Power Press

出版日期: Jan 1, 2014

出版物名称: Shuikexue Jinzhan/Advances in Water Science

出版物类型: Journal

分类: 444: Water Resources; 444.1: Surface Water; 451: Air Pollution; 484: Seismology; 821.4: Agricultural Products; 914.1: Accidents and Accident Prevention

分页: 36-44

创建日期: 2014-03-14

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摘要语言: English

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数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-28

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Correlation coefficient, Cumulative precipitation, Daily precipitations, Drought and flood disasters, Flood and drought disaster, Huaihe river basins, Spatial-temporal characteristics, Variation tendencies, Huaihe River basin, Threshold of disaster

标题: On threshold of drought and flood disasters in Huaihe River basin

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第一个可用: 2014-03-28

语言: 英文

Mineral-associated organic carbon and black carbon in restored wetlands

作者: Wang, Qing 1 ; Zhang, Ping-Jiu 2 ; Liu, Min 3 ; Deng, Zheng-Wei 2

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出版物信息: Soil Biology and Biochemistry 75 (Jan 1, 2014): 300-309.

[ProQuest 文档链接](#)

摘要 (English): Stable soil organic carbon (SSOC) has a vital influence on soil's capacity for resisting disturbance and sequestering carbon. However, studies of the SSOC in restored wetlands are incomplete. We studied mineral-associated organic carbon (MOC) and black carbon (BC), two representatives of SSOC, in a wetland restoration chronosequence in Caizi Lake, East China. MOC was analyzed by both a physical method, involving dividing soil into size-fractions POM (>53µm) and MOM (0.45-53µm) and detecting OC in MOM (MOC

p), and a chemical method, acidifying soil with hydrofluoric acid (HF) and detecting OC loss (MOC_C). BC was analyzed by methods using dichromate (BC_{Cr}) and chemothermal oxidation (BC_{CTO}). MOC_C , BC_{Cr} , and BC_{CTO} were further determined in MOM for comparing results from different fractions and methods. We found an elevation of soil ecological function in wetlands restored from farmlands in Caizi Lake, which was supported by a general increase of MOC and BC with time after restoration at surface soil (0-6cm). Comparison of methods showed that size fractionation method overestimated MOC by identifying all OC in MOM as MOC, since HF-soluble OC accounted for no more than 23.5% of the whole OC in MOM. As it may separate more components, e.g. charcoal, from BC continuum, the dichromate method was recommended as more meaningful in the study of BC recovery in restored wetlands with biomass-burning history. We presented the possible use of ratio ($BC_{Cr} - BC_{CTO}$): BC_{CTO} for BC source identification which produced a reasonable result similar to that of a commonly used method. The combination of physical and chemical fractionation methods revealed that the proportion of BC to TOC in POM was considerable, which indicated that POM was not invariably labile as was commonly understood. Finally, a detailed list of soil organic carbon components including MOC, BC and labile OC in each size fraction was represented by using sequential analysis and combination of fractionation methods. ©2014 Elsevier Ltd.

DOI: <http://dx.doi.org/10.1016/j.soilbio.2014.04.025>

ISSN: 00380717

主题: Soils (主要); Biological materials; Charcoal; Chemical analysis; Fractionation; Hydrofluoric acid; Lakes; Minerals; Restoration; Wetlands

出版商: Elsevier Ltd

出版日期: Jan 1, 2014

出版物名称: Soil Biology and Biochemistry

出版物类型: Journal

分类: 402: Buildings and Towers; 407: Maritime and Port Structures; Rivers and Other Waterways; 409: Civil Engineering, General; 461.2: Biological Materials; 482.2: Minerals; 483.1: Soils and Soil Mechanics; 524: Solid Fuels; 801: Chemistry; 802.3: Chemical Operations; 804: Chemical Products Generally; 804.2: Inorganic Compounds

分页: 300-309

创建日期: 2014-06-02

卷: 75

摘要语言: English

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数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-08

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Chemical Fractionation, Comparison of methods, Ecological functions, Fractionation methods, Particulate organic matters, Soil organic carbon, Source identification, Wetland restoration, Lacustrine wetland, Mineral-associated organic matter, Particulate organic matter, Recalcitrant carbon, Stable organic carbon

标题: Mineral-associated organic carbon and black carbon in restored wetlands

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第一个可用: 2014-06-08

语言: 英文

Improved antireflection properties and optimized structure for passivation of well-separated, vertical silicon nanowire arrays for solar cell applications

作者: Zuo, Zewen 1 ; Zhu, Kai 2 ; Cui, Guanglei 2 ; Huang, Wanxia 2 ; Qu, Jun 2 ; Shi, Yi 3 ; Liu, Yousong 4 ; Ji, Guangbin 4

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出版物信息: Solar Energy Materials and Solar Cells 125 (Jan 1, 2014): 248-252.

[ProQuest 文档链接](#)

摘要 (English): Large-area, well-separated, and vertically aligned silicon nanowire (SiNW) arrays with excellent antireflection properties were fabricated through a combination of anodic aluminum oxide template and metal-assisted chemical etching, followed by supercritical drying. Less than 1% reflectance was achieved over the wavelength range of 200-600 nm, and 23% reduction in average reflectance was observed over the 200-1000 nm range, compared with the conical-frustum structure array by natural drying. Furthermore, the well-separated SiNW arrays considerably facilitated the conformal coating of the plasma-enhanced chemical vapor deposited amorphous silicon layer on the SiNW surface, which could result in effective passivation of surface states. Therefore, such well-separated and vertically aligned SiNW arrays are highly promising for solar cell application. ©2014 Elsevier B.V.

DOI: <http://dx.doi.org/10.1016/j.solmat.2014.03.026>

ISSN: 09270248

主题: Separation (主要); Anodic oxidation; Drying; Nanowires; Passivation; Reflection; Solar cells

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出版物名称: Solar Energy Materials and Solar Cells

出版物类型: Journal

分类: 615.2: Solar Power; 711: Electromagnetic Waves; 761: Nanotechnology; 802.2: Chemical Reactions; 802.3: Chemical Operations; 933: Solid State Physics

分页: 248-252

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卷: 125

摘要语言: English

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数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-04-13

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Amorphous silicon layers, Anodic aluminum oxide template, Anti-reflection, Chemical vapor deposited, Conformal coatings, Metal-assisted chemical etching, Supercritical drying, Well-separated SiNWs, Antireflection property, Conformal coating

标题: Improved antireflection properties and optimized structure for passivation of well-separated, vertical silicon nanowire arrays for solar cell applications

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第一个可用: 2014-04-13

语言: 英文

Controllable synthesis and property of graphene-based magnetic metal nanostructures

作者: Wu, Kong-Lin 1 ; Li, Xiang-Zi 2 ; Wei, Xian-Wen 1 ; Ding, Ting-Hui 1 ; Jiang, Miao 1 ; Zhang, Wen-Juan 1 ; Ye, Yin 1

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出版物信息: Solid State Sciences 38 (Jan 1, 2014): 90-96.

[ProQuest 文档链接](#)

摘要 (English): A facile and effective solution phase reduction method was developed to synthesize graphene-based magnetic metal nanocomposites. Metals (Co, and Ni) or alloys ($\text{Fe}_{51}\text{Co}_{49}$, $\text{Fe}_{48}\text{Ni}_{52}$, $\text{Ni}_{49}\text{Co}_{51}$, $\text{Co}_{51}\text{Cu}_{49}$,

and Ni₅₂Cu₄₈/reduced graphene oxide (RGO) nanocomposites were successfully prepared by reduction of the corresponding aqueous metal ions and ethylenediamine (EDA)-graphene oxide (GO) with hydrazine hydrate at 353 K for 1 h under N₂ atmosphere. The effects of synthetic parameters such as metal ions concentration, adding sequence of NaOH and N₂H₄·H₂O, linkage agent and reaction time on the formation of nanocomposites were investigated. The experimental results showed that using ethylenediamine and adding sequence played critical roles in the formation of metals or alloys/RGO nanocomposites. Magnetic hysteresis measurements revealed that the as-synthesized metals or alloys in nanocomposites showed excellent soft magnetic behavior with enhanced saturation magnetization, and could have promising applications in biotechnology, catalysis, and magnetic storage devices.

DOI: <http://dx.doi.org/10.1016/j.solidstatesciences.2014.10.005>

ISSN: 12932558

主题: Synthesis (chemical) (主要); Magnetization; Nanostructured materials

出版商: Elsevier Masson SAS

出版日期: Jan 1, 2014

出版物名称: Solid State Sciences

出版物类型: Journal

分类: 714.2: Semiconductor Devices and Integrated Circuits; 761: Nanotechnology; 802.2: Chemical Reactions

分页: 90-96

创建日期: 2014-11-06

卷: 38

摘要语言: English

收录号: 201445155470

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-11-09

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Controllable synthesis, Graphene oxides, Magnetic metals, Metals and alloys, Chemical synthesis, Graphene oxide

标题: Controllable synthesis and property of graphene-based magnetic metal nanostructures

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第一个可用: 2014-11-09

语言: 英文

Four new two-photon polymerization initiators with varying donor and conjugated bridge: Synthesis and two-photon activity

作者: Hao, Fuying 1 ; Liu, Zhaodi 1 ; Zhang, Mingliang 2 ; Liu, Jie 1 ; Zhang, Shengyi 2 ; Wu, Jieying 2 ; Zhou, Hongping 2 ; Tian, Yupeng 2

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出版物信息: Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy 118 (Jan 1, 2014): 538-542.

[ProQuest 文档链接](#)

摘要 (English): A specific series of dumbbell-shaped bis-carbazoles or bis-phenothiazines dyes (1, 2, 3 and 4) constructed with styrene or biphenylethyne as the π -bridge have been synthesized and characterized. Detailed spectral properties including linear absorption, one and two-photon fluorescence properties were investigated. The results show that extending conjugated chain and introducing donors have substantial effect on their photophysical properties. Among them, two-photon absorption cross sections (σ) of the four dyes in DMF determined by the Z-scan technique are successively increased from 1 to 4 with enhancing electron-donating ability and extending conjugated chain, but electron-donating ability has larger contribution to the σ values than extending conjugated chain based on the comparison of small molecules (D- π -D). Two-photon initiation polymerization (TPIP) microfabrication experiments have been carried out using compound 4 as an initiator under irradiation of 200 fs, 76 MHz femtosecond laser at 760 nm. The results confirm that the four dyes can be effectively used as organic two-photon photopolymerization initiators. ©2013 Elsevier B.V. All rights reserved.

DOI: <http://dx.doi.org/10.1016/j.saa.2013.09.051>

ISSN: 13861425

主题: Photons (主要); Chains; Dyeing; Photopolymerization; Polymerization; Styrene; Two photon processes

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy

出版物类型: Journal

分类: 602.1: Mechanical Drives; 741.1: Light and Optics; 802: Chemical Apparatus and Plants; Unit Operations; Unit Processes; 804.1: Organic Compounds; 815.2: Polymerization

分页: 538-542

创建日期: 2013-10-15

卷: 118

摘要语言: English

收录号: 20134216848432

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2013-10-21

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Electron-donating ability, Initiation polymerization, Photopolymerization initiators, Two-photon absorption cross section, Two-photon absorptions, Two-photon fluorescence properties, Two-photon photopolymerization, Z-scan technique, Dyes, Photopolymerization initiator, Two-photon absorption

标题: Four new two-photon polymerization initiators with varying donor and conjugated bridge: Synthesis and two-photon activity

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第一个可用: 2013-10-21

语言: 英文

Research on meteorological thresholds of drought and flood disaster: a case study in the Huai River Basin, China

作者: Gao, Chao 1 ; Zhang, Zhengtao 1 ; Zhai, Jianqing 2 ; Qing, Liu 1 ; Mengting, Yao 1

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出版物信息: Stochastic Environmental Research and Risk Assessment 29.1 (Jan 1, 2014): 157-167.

[ProQuest 文档链接](#)

摘要 (English): Together with affected areas of crops from 1978 to 2008, the daily precipitation of 110 stations located in the Huai River Basin during 1959–2008 was used to study the critical conditions when drought and flood occur, based on which the quantitative relationship between the critical condition and the affected area of crops was further studied. Based on the research on the hazard-formative factor of precipitation and the damage degree of crops, the spatial-temporal characteristics of disasters were analyzed, the drought and flood disaster-causing threshold was determined, and the quantitative relationship between the disaster-causing threshold and affected area of crops was established. The results are as the follows: (1) During 1959–2008, extreme precipitation levels were high in the eastern and western part of the Huai River Basin and were low in its central part; the spatial distribution of the coefficient of variation (CV) differed greatly from average extreme precipitation: the series of most stations were located in the central basin, and especially there was a positive trend in Anhui and Henan Provinces. (2) The cumulative precipitation during the disaster period of each station was divided by its mean cumulative precipitation during the same period in 1959–2008 to obtain the disaster-causing threshold, which has shown a good effect on reflecting the actual grade and affected areas in disasters.

(3) The relationship among disaster grade, disaster-causing threshold and damage area of crops was established; this threshold can be used as a tool for agricultural disaster assessment and early warning, and can effectively improve the ability to prevent and mitigate disaster in the Huai River Basin. (4) The disaster-causing threshold can be an important input parameter for hazard assessment; other underlying surface indicators can be good supplements for determining the threshold in hazard assessment.

DOI: <http://dx.doi.org/10.1007/s00477-014-0951-y>

ISSN: 14363240

主题: Climate change (主要); Drought; Floods

出版商: Springer New York LLC

出版日期: Jan 1, 2014

出版物名称: Stochastic Environmental Research and Risk Assessment

出版物类型: Journal

分页: 157-167

创建日期: 2014-11-11

卷: 29

摘要语言: English

收录号: 201445178003

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: Revised

文档类型: Article

更新: 2014-11-16 2014-11-30 2014-11-30

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Drought and flood disasters, Huai rivers, Meteorological threshold, Huai River Basin

标题: Research on meteorological thresholds of drought and flood disaster: a case study in the Huai River Basin, China

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第一个可用: 2014-11-16

语言: 英文

Controlled synthesis of porous Co₃O₄ micro/nanostructures and their photocatalysis property

作者: Huang, Jiarui 1 ; Ren, Haibo 2 ; Chen, Kaikai 3 ; Shim, Jae-Jin 3

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出版物信息: Superlattices and Microstructures 75 (Jan 1, 2014): 843-856.

[ProQuest 文档链接](#)

摘要 (English): Porous nanoflower-like, micropancake-like and microflower-like Co_3O_4 micro/nanostructures were synthesized by a template-free aqueous solution route combined with subsequent thermal treatment. Techniques of X-ray diffraction, scanning electron microscopy, thermogravimetric-differential thermal analysis, and transmission electron microscopy were used to characterize the structure and morphology of the products. The experimental results show that three kinds of morphologies of cobalt precursors can be achieved by addition of ammonia at different temperatures. The corresponding Co_3O_4 hierarchical micro/nanostructures were obtained after 500 °C calcinations. In addition, the obtained porous Co_3O_4 hierarchical micro/nanostructures were used as catalyst to photodegrade Rhodamine B, methylene blue, p-nitrophenol, eosin B, and methyl orange. Compared with porous Co_3O_4 micropancakes, the as-prepared porous Co_3O_4 nanoflowers and microflowers exhibit higher catalytic activities due to their large surface areas and porous hierarchical structures. The photocatalytic reaction rate constant of the porous Co_3O_4 nanoflowers in photocatalytic decomposition of Rhodamine B under UV light is calculated as 0.0828 min^{-1} .

DOI: <http://dx.doi.org/10.1016/j.spmi.2014.09.006>

ISSN: 07496036

主题: Microstructure (主要); Nanostructured materials

出版商: Academic Press

出版日期: Jan 1, 2014

出版物名称: Superlattices and Microstructures

出版物类型: Journal

分类: 761: Nanotechnology; 933: Solid State Physics; 951: Materials Science

分页: 843-856

创建日期: 2014-11-06

卷: 75

摘要语言: English

收录号: 201445155223

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-11-09

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Cobalt oxides, Controlled synthesis, Micro/nanostructures, Photocatalysis properties, Porous morphology, Cobalt oxide, Photocatalysis property

标题: Controlled synthesis of porous Co_3O_4 micro/nanostructures and their photocatalysis property

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第一个可用: 2014-11-09

语言: 英文

Synthesis of 3,4,5-trisubstituted isoxazoles by the 1,3-dipolar cycloaddition reaction of α -azido acrylates and aromatic oximes

作者: Hu, Manman 1 ; He, Xinwei 1 ; Niu, Zhiqiang 1 ; Yan, Zhenglei 1 ; Zhou, Fuyin 1 ; Shang, Yongjia 1

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出版物信息: Synthesis (Germany) 46.4 (Jan 1, 2014): 510-514.

[ProQuest 文档链接](#)

摘要 (English): A novel, one-pot, cascade reaction sequence featuring the 1,3-dipolar cycloaddition reaction of α -azido acrylates and aromatic oximes was developed. This procedure provides an efficient, straightforward and metal-free method for the synthesis of 3,4,5-trisubstituted isoxazoles under mild reaction conditions. ©2014 Georg Thieme Verlag Stuttgart New York.

DOI: <http://dx.doi.org/10.1055/s-0033-1340470>

ISSN: 00397881

主题: Cycloaddition (主要); Aromatic compounds; Aromatization; Salts

出版商: Georg Thieme Verlag

出版日期: Jan 1, 2014

出版物名称: Synthesis (Germany)

出版物类型: Journal

分类: 802.2: Chemical Reactions; 804.1: Organic Compounds

分页: 510-514

创建日期: 2014-02-19

卷: 46

摘要语言: English

收录号: 20140817347802

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-04

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): 1,3-Dipolarcycloaddition, aromatic oximes, Cascade reactions, Isoxazoles, Mild reaction conditions, One pot, One-pot synthesis, 1,3-dipolar cycloaddition, α -azido acrylates

标题: Synthesis of 3,4,5-trisubstituted isoxazoles by the 1,3-dipolar cycloaddition reaction of α -azido acrylates and aromatic oximes

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第一个可用: 2014-03-04

语言: 英文

Domino access to yne-functionalized benzoisindolines from triynes

作者: Li, Lidong 1 ; Hu, Qiong 2 ; Zhou, Pingping 2 ; Xie, Haifeng 2 ; Zhang, Xiaorong 2 ; Zhang, Hao 2 ; Wang, Hua 2 ; Hu, Yimin 2

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出版物信息: Synthesis (Germany) 46.11 (Jan 1, 2014): 1547-1554.

[ProQuest 文档链接](#)

摘要 (English): The first examples of a convenient domino synthesis of fused yne-functionalized benzoisindoline derivatives by a copper(I) iodide catalyzed cyclization reaction of simple triynes in a single operation are described. ©Georg Thieme Verlag Stuttgart New York.

DOI: <http://dx.doi.org/10.1055/s-0033-1341045>

ISSN: 00397881

主题: Catalysis (主要); Copper; Cyclization; Reaction kinetics

出版商: Georg Thieme Verlag

出版日期: Jan 1, 2014

出版物名称: Synthesis (Germany)

出版物类型: Journal

分类: 544.1: Copper; 802.2: Chemical Reactions

分页: 1547-1554

创建日期: 2014-06-03

卷: 46

摘要语言: English

收录号: 20142317780649

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-06-08

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Copper iodide, Cyclization reactions, Cycloadditions, Domino reactions, Heterocycles

标题: Domino access to yne-functionalized benzoisindolines from triynes

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第一个可用: 2014-06-08

语言: 英文

Tannic acid functionalized N-doped graphene modified glassy carbon electrode for the determination of bisphenol A in food package

作者: Jiao, Shoufeng 1 ; Jin, Jing 2 ; Wang, Lun 2

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出版物信息: Talanta 122 (Jan 1, 2014): 140-144.

[ProQuest 文档链接](#)

摘要 (English): A rapid, environmental friendly, and sensitive sensor for the detection of bisphenol A (BPA) was developed at glassy carbon electrode (GCE) modified with Tannic acid functionalized N-doped graphene (TA/N-G) immobilized by Nafion. Compared with other sensors, the proposed sensor greatly enhanced the response

signal of BPA due to the active surface area of N-G and high absorption efficiency of TA. Under the optimal conditions, the oxidation current increased linearly with increasing the concentration of BPA in the range of 0.05-13 μ M with the detection limit of 4.0 nM. The fabricated electrode showed good reproducibility, stability and anti-interference. The developed electrochemical sensor was successfully applied to determine BPA in food package. ©2014 Elsevier B.V.

DOI: <http://dx.doi.org/10.1016/j.talanta.2014.01.063>

ISSN: 00399140

主题: Chemical detection (主要); Doping (additives); Electrochemical sensors; Glass; Glass membrane electrodes; Graphene; Sensors; Tannins

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Talanta

出版物类型: Journal

分类: 761: Nanotechnology; 801: Chemistry; 804: Chemical Products Generally; 804.1: Organic Compounds; 812.3: Glass

分页: 140-144

创建日期: 2014-02-19

卷: 122

摘要语言: English

收录号: 20140817347925

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文档状态: New

文档类型: Article

更新: 2014-03-04

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Absorption efficiency, Bis-phenol a, Electrochemical determination, Environmental-friendly, Glassy carbon electrodes, Modified glassy carbon electrode, N-doped, Tannic acid, Bisphenol A, N-doped graphene

标题: Tannic acid functionalized N-doped graphene modified glassy carbon electrode for the determination of bisphenol A in food package

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第一个可用: 2014-03-04

语言: 英文

Eu(III)-induced room-temperature fast transformation of CdTe nanocrystals into nanorods

作者: Du, Jinyan 1 ; Dong, Xiawei 1 ; Zhuo, Shujuan 1 ; Shen, Weili 1 ; Sun, Lilin 1 ; Zhu, Changqing 1

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出版物信息: Talanta 122 (Jan 1, 2014): 229-233.

[ProQuest 文档链接](#)

摘要 (English): A fast and mild synthesis method of highly crystalline CdTe nanorods (NRs) was developed by adding europium nitrate hexahydrate to an aqueous solution of CdTe nanocrystals (NCs) at room temperature within 30 min. It was suggested that strong coordination strength of Eu(III) decreases zeta potential, thereby accelerates aggregation of NCs, and favors the transformation process from NCs to NRs. The oriented attachment of aggregated particles was suggested as a major path for the formation of highly crystalline NRs under experimental conditions. The proposed extremely fast room-temperature methodology opens up novel pathways for the synthesis of one-dimensional (1D) semiconductor nanostructures with high crystallinity, which would become potential candidates for many practical applications such as photovoltaics, circuit design and fabrication of functional architectures. ©2014 Published by Elsevier B.V.

DOI: <http://dx.doi.org/10.1016/j.talanta.2014.01.042>

ISSN: 00399140

主题: Cadmium telluride (主要); Crystalline materials; Nanocrystals; Nanorods

出版商: Elsevier

出版日期: Jan 1, 2014

出版物名称: Talanta

出版物类型: Journal

分类: 761: Nanotechnology; 804: Chemical Products Generally; 933: Solid State Physics; 933.1: Crystalline Solids

分页: 229-233

创建日期: 2014-02-25

卷: 122

摘要语言: English

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数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-04

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): CdTe nanocrystals, Experimental conditions, Fast transformation, Functional architecture, Oriented attachment, Room temperature, Semiconductor nanostructures, Transformation process, Cubic nanorods

标题: Eu(III)-induced room-temperature fast transformation of CdTe nanocrystals into nanorods

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第一个可用: 2014-03-04

语言: 英文

Construction of a family of p-ary optimal linear codes and low correlation linear sequences

作者: Tang, Yong-Sheng 1 ; Zhu, Shi-Xin 2 ; Cao, De-Cai 2 ; Dinh, Hai Quang 3

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出版物信息: Tien Tzu Hsueh Pao/Acta Electronica Sinica 42.3 (Jan 1, 2014): 572-577.

[ProQuest 文档链接](#)

摘要 (English): In information theory, optimal linear codes have good capability in error-correcting in coding theory and linear sequences with low correlation have been widely used in cryptography and CDMA systems. Therefore, it has great value to study the construction of optimal linear codes and low correlation linear sequences. Let $R = F_p + uF_p$, where p is an odd prime. A class of new linear codes over R is constructed by means of the trace map. Then a kind of optimal codes over F_p is obtained via the Gray map from the punctured new linear codes. Furthermore, a class of new linear cyclic codes over R is also constructed by means of the trace map. A kind of low correlation linear sequences over F_p is observed via the generalized Nechaev-Gray map from the class of new linear cyclic codes, which are regarded as a class of linear periodic sequences.

DOI: <http://dx.doi.org/10.3969/j.issn.0372-2112.2014.03.022>

ISSN: 03722112

主题: Codes (symbols) (主要); Computer programming

出版商: Chinese Institute of Electronics

出版日期: Jan 1, 2014

出版物名称: Tien Tzu Hsueh Pao/Acta Electronica Sinica

出版物类型: Journal

分类: 723.1: Computer Programming; 723.2: Data Processing

分页: 572-577

创建日期: 2014-07-16

卷: 42

摘要语言: English

收录号: 20142917946985

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-23

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Coding Theory, Error-correcting, Linear cyclic code, Linear sequence, Low correlation, Optimal codes, Optimal linear code, Periodic sequence, Linear sequences, Optimal linear codes, Trace map

标题: Construction of a family of p-ary optimal linear codes and low correlation linear sequences

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第一个可用: 2014-07-23

语言: 英文

Market power and its determinants in the Chinese airline industry

作者: Zhang, Qiong 1 ; Yang, Hangjun 2 ; Wang, Qiang 2 ; Zhang, Anming 3

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出版物信息: Transportation Research Part A: Policy and Practice 64 (Jan 1, 2014): 1-13.

[ProQuest 文档链接](#)

摘要 (English): This paper first measures the degree of Chinese airlines' market power by using Lerner index, and then investigates its determinants. Our empirical results show that a certain degree of market power exists in the Chinese airline industry. Of the three dominant carriers, Air China exhibits the strongest market power whereas China Eastern Airlines the weakest, with China Southern Airlines being in the middle. Furthermore, the extent of market power varies significantly among regional markets, with China's northeast region as the strongest, followed by the eastern and western regions, and the central area as the weakest. We also find a hub-premium effect similar to the result found in the US airline market. Our analysis shows that the existence of

high-speed rail and low-cost carriers, income level, population size, seasonality, and number of competing airlines are the main determinants of competition in the Chinese airline market. ©2014 Elsevier Ltd.

DOI: <http://dx.doi.org/10.1016/j.tra.2014.03.003>

ISSN: 09658564

主题: Commerce (主要); Air transportation; Population statistics

出版商: Elsevier Ltd

出版日期: Jan 1, 2014

出版物名称: Transportation Research Part A: Policy and Practice

出版物类型: Journal

分类: 431.1: Air Transportation, General; 911.2: Industrial Economics; 922.2: Mathematical Statistics

分页: 1-13

创建日期: 2014-04-22

卷: 64

摘要语言: English

收录号: 20141717606218

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-04-27

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Airline industry, Lerner index, Low-cost carriers, Market Power, Market-power determinants, Northeast regions, Population sizes, Regional markets, Chinese airline industry

标题: Market power and its determinants in the Chinese airline industry

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第一个可用: 2014-04-27

语言: 英文

Study on the application of crisis motivation mechanism in coal mine enterprise

作者: He, Yerong 1 ; Wang, Xiangqian 2 ; Li, Huizong 2

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and Management, Anhui University of Science and Technology, Huainan, China

出版物信息: WIT Transactions on Information and Communication Technologies 46 3 (Jan 1, 2014): 2889-2895.

[ProQuest 文档链接](#)

摘要 (English): This paper presents a series of theoretical and empirical analysis research on crisis motivation. The result shows that crisis motivation takes the advantages of good flexibility and elasticity. So it can be fully used according to the operation state in different period of the coal mine enterprise and improve the rigidity showed by the traditional positive motivation model. This paper also gives a brief discussion of the application of crisis motivation mechanism in coal mine enterprises, which makes the application of crisis motivation in coal mine enterprises not only feasible theoretically but also have great practical value and good operability. ©2014 WIT Press.

DOI: <http://dx.doi.org/10.2495/ISME20133923>

ISSN: 17433517

主题: Motivation (主要); Coal mines; Elasticity; Industry; Information technology

出版商: WITPress

出版日期: Jan 1, 2014

出版物名称: WIT Transactions on Information and Communication Technologies

出版物类型: Conference Papers & Proceedings

分类: 912.4: Personnel; 912: Industrial Engineering and Management; 911: Cost and Value Engineering; Industrial Economics; 913: Production Planning and Control; Manufacturing; 903: Information Science; 422: Strength of Building Materials; Test Equipment and Methods; 421: Strength of Building Materials; Mechanical Properties; 503.1: Coal Mines

分页: 2889-2895

创建日期: 2013-11-26

卷: 46 VOLUME 3

摘要语言: English

收录号: 20134817023761

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Conference Paper

更新: 2013-12-02

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Empirical analysis, Motivation mechanism, Motivation models, Operation state, Organizational performance, Coal mine enterprise, Crisis motivation

标题: Study on the application of crisis motivation mechanism in coal mine enterprise

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第一个可用: 2013-12-02

语言: 英文

Design on simpliciTI based self-organizing network

作者: Yin, Zhouping 1

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出版物信息: WIT Transactions on Information and Communication Technologies 46 2 (Jan 1, 2014): 1229-1236.

[ProQuest 文档链接](#)

摘要 (English): Wireless self-organizing network is more and more important in daily life. Conventional sensors cannot process large amount of data effectively and communicate with each other, which is very valuable according to high demands on measurement techniques. Therefore, this paper design a SimpliciTI based selforganizing network, present the system architecture of self-organizing sensor network, and build the hardware system with SoC CC1110. The software system is designed by IAR embedded workbench. Finally, in order to validate the robustness and ability of the network, a set of experiment is designed, and the result shows that the designed self-organizing sensor network works well with high accuracy. The result provides a reference for researching on SimpliciTI based self-organizing network. ©2014 WIT Press.

DOI: <http://dx.doi.org/10.2495/ISME20131582>

ISSN: 17433517

主题: Network security (主要); Information technology; Sensor networks; Wireless networks

出版商: WITPress

出版日期: Jan 1, 2014

出版物名称: WIT Transactions on Information and Communication Technologies

出版物类型: Conference Papers &Proceedings

分类: 722.4: Digital Computers and Systems; 723: Computer Software, Data Handling and Applications; 732: Control Devices; 903: Information Science

分页: 1229-1236

创建日期: 2013-11-26

卷: 46 VOLUME 2

摘要语言: English

收录号: 20134817023530

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Conference Paper

更新: 2013-12-02

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Conventional sensors, Hardware system, Measurement techniques, Security model, Self-organizing network, Self-organizing sensors, Software systems, System architectures, Wireless network

标题: Design on simpliciti based self-organizing network

版权: Copyright 2013 Elsevier B.V., All rights reserved.

第一个可用: 2013-12-02

语言: 英文

Method analysis and design on self-organizing network

作者: Yin, Zhouping 1

1 Anqing Normal University, Anqing, Anhui, China

出版物信息: WIT Transactions on Information and Communication Technologies 46 2 (Jan 1, 2014): 1221-1228.

[ProQuest 文档链接](#)

摘要 (English): As a special network, self-organizing network is used widely in the communication technology. Compared with other networks, self-organizing network has its special feature, such as self-organizing, dynamic network topology structure, and so on. There are more advantages than disadvantages for the use of selforganizing network. With the development of the computer science and communication technology, there are some hot study points for self-organizing network. And there are also some methods for the design on self-organizing network. In this paper, the method of self-organizing network will be described, and the process of network design will be shown directly with the help of software named MATLAB. The role of self-organizing network will become more and more important. Although there are some disadvantages on self-organizing network, such as limited transmission bandwidth, poor safety, limited handing ability of node, and so on, I believe that some methods will be invented, and we can overcome the disadvantages. It will change the existing network structure, and it can be a good choice. ©2014 WIT Press.

DOI: <http://dx.doi.org/10.2495/ISME20131572>

ISSN: 17433517

主题: Design (主要); Communication systems; Information technology; MATLAB

出版商: WITPress

出版日期: Jan 1, 2014

出版物名称: WIT Transactions on Information and Communication Technologies

出版物类型: Conference Papers & Proceedings

分类: 408: Structural Design; 716: Electronic Equipment, Radar, Radio and Television; 903: Information Science; 921: Applied Mathematics

分页: 1221-1228

创建日期: 2013-11-26

卷: 46 VOLUME 2

摘要语言: English

收录号: 20134817023529

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Conference Paper

更新: 2013-12-02

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Communication technologies, Dynamic network topology, Method analysis, Network design, Network structures, Self-organizing network, Transmission bandwidth

标题: Method analysis and design on self-organizing network

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第一个可用: 2013-12-02

语言: 英文

Path planning of mobile robot using artificial networks in an obstacle environment

作者: Sun, Liping 1 ; Luo, Yonglong 1 ; Ding, Xintao 1 ; Guo, Liang Min 2

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出版物信息: WIT Transactions on Information and Communication Technologies 59 (Jan 1, 2014): 495-500.

[ProQuest 文档链接](#)

摘要 (English): Since traditional obstacle avoidance path planning methods have a lot of problems, this paper proposes a new method based on artificial neural network for path planning in dynamic environment. The method builds a neural network model to obtain the relationship between the obstacles and the network output. The optimal collision-free path from the beginning to the end can be achieved. The results of experiment simulation show that the algorithm is effective.

DOI: <http://dx.doi.org/10.2495/ICACC130661>

ISSN: 17433517

主题: Collision avoidance (主要); Motion planning

出版商: WITPress

出版日期: Jan 1, 2014

出版物名称: WIT Transactions on Information and Communication Technologies

出版物类型: Conference Papers & Proceedings

分类: 731.5: Robotics; 914.1: Accidents and Accident Prevention

分页: 495-500

创建日期: 2014-10-31

卷: 59

摘要语言: English

收录号: 201443127131

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: Revised

文档类型: Conference Paper

更新: 2014-11-02 2014-11-02

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Artificial networks, BP neural networks, Convex hull algorithm, Minimum convex hull algorithm, Obstacle avoidance, Path planning

标题: Path planning of mobile robot using artificial networks in an obstacle environment

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第一个可用: 2014-11-02

语言: 英文

Symplectic FDTD algorithm for the simulations of double dispersive materials

作者: Wang, Hui 1 ; Huang, Zhi-Xiang 2 ; Wu, Xian-Liang 3 ; Ren, Xin-Gang 4 ; Wu, Bo 2

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Ministry of Education, Anhui University, Hefei 230039, China zxhuang@ahu.edu.cn 3 The Key Laboratory of Intelligent Computing and Signal Processing, Ministry of Education, Anhui University, Hefei 230039, China, Department of Physics and Engineering, Hefei Normal College, Hefei 230061, China 4 Department of Electrical and Electronic Engineering, The University of Hong Kong, Pokfulam Road, Hong Kong, Hong Kong
出版物信息: Wuli Xuebao/Acta Physica Sinica 63.7 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): Combined with the Lossy Drude-Lorentz dispersive model, a symplectic finite-difference time-domain (SFDTD) algorithm is proposed to deal with the double dispersive model. Based on matrix splitting, symplectic integrator propagator and the auxiliary differential equation (ADE) technique, with the rigorous and artful formula derivation, the algorithm is constructed, and detailed formulations are provided. Excellent agreement is achieved between the SFDTD-calculated and exact theoretical results when transmittance coefficient in simulation of double dispersive film in one dimension is calculated. As to numerical results for a more realistic structure in three dimensions, the simulation of periodic arrays of silver split-ring resonators using the Drude dispersion model are also included. The transmittance, reflectance, and absorptance of the structure are presented to test the efficiency of the proposed method. Our method can be used as an efficiency simulation tool for checking the experimental data. ©2014 Chinese Physical Society.

DOI: <http://dx.doi.org/10.7498/aps.63.070203>

ISSN: 10003290

主题: Computer simulation (主要); Algorithms; Differential equations; Finite difference time domain method; Matrix algebra

出版商: Science Press

出版日期: Jan 1, 2014

出版物名称: Wuli Xuebao/Acta Physica Sinica

出版物类型: Journal

分类: 723.5: Computer Applications; 921: Applied Mathematics

创建日期: 2014-04-07

卷: 63

摘要语言: English

收录号: 20141417548214

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-04-13

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Auxiliary differential equations, Dispersive materials, Dispersive models, Finite difference time domains, Matrix splittings, Split-ring resonator, Symplectic integrators, Transmittance coefficient, Double

dispersive model, Lossy Drude-Lorentz dispersive model, Matrix splitting, Symplectic finite-difference time-domain

标题: Symplectic FDTD algorithm for the simulations of double dispersive materials

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第一个可用: 2014-04-13

语言: 英文

Damped brachistochrone problem and the relation between constraint and theorem of motion

作者: Ding, Guang-Tao 1

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出版物信息: Wuli Xuebao/Acta Physica Sinica 63.7 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): The damped brachistochrone problem and that with non-zero initial velocity are studied. Based on the discussion of these problems, one may take theorems of motion as constraints for some systems, and whether the constraints are holonomic or nonholonomic is related to the fact that the differential theorems of motion are integrable or non-integrable. ©2014 Chinese Physical Society.

DOI: <http://dx.doi.org/10.7498/aps.63.070201>

ISSN: 10003290

主题: Variational techniques (主要); Astrophysics; Physics

出版商: Science Press

出版日期: Jan 1, 2014

出版物名称: Wuli Xuebao/Acta Physica Sinica

出版物类型: Journal

分类: 921.2: Calculus; 931: Applied Physics Generally; 931.1: Mechanics; 932: High Energy Physics; Nuclear Physics; Plasma Physics; 933: Solid State Physics

创建日期: 2014-04-07

卷: 63

摘要语言: English

收录号: 20141417548212

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-04-13

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Brachistochrone, Brachistochrone problems, Constraint, Holonomic, Initial velocities, Nonholonomics, Theorem of motion, Variational calculus

标题: Damped brachistochrone problem and the relation between constraint and theorem of motion

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第一个可用: 2014-04-13

语言: 英文

Computation of document similarity based on metadata and domain concept tree

作者: Zhang, Pei-Yun 1 ; Chen, En-Hong 2 ; Xie, Rong-Jian 3 ; Gong, Xiu-Wen 4 ; Huang, Bo 5

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出版物信息: Xi Tong Gong Cheng Yu Dian Zi Ji Shu/Systems Engineering and Electronics 36.3 (Jan 1, 2014): 591-597.

[ProQuest 文档链接](#)

摘要 (English): With the rapid development of network and information technology, a large number of electronic documents appear on the network, and the similarity computation between the documents is an important means of document processing. For large-scale collection of documents, vector space model (VSM) is usually used for document representation, but the method is facing the problems of higher dimension and lack of semantic similarity. An improved method for calculating the similarity of document is proposed. Metadata feature vectors are selected from a large number of representative feature space, so that it can reduce the dimension of the vector space. The domain concept tree is constructed and the algorithm for computing document similarity is designed. In order to improve the document semantic similarity of algorithm performance, the synonym concepts which exist in widespread areas are processed. The experimental results show that the proposed method can improve the performance of document similarity computation based on the dimensionality reduction and the concepts similarity computing.

DOI: <http://dx.doi.org/10.3969/j.issn.1001-506X.2014.03.28>

ISSN: 1001506X

主题: Trees (mathematics) (主要); Algorithms; Forestry; Information technology; Metadata; Vector spaces; Word processing

出版商: Chinese Institute of Electronics

出版日期: Jan 1, 2014

出版物名称: Xi Tong Gong Cheng Yu Dian Zi Ji Shu/Systems Engineering and Electronics

出版物类型: Journal

分类: 723: Computer Software, Data Handling and Applications; 723.2: Data Processing; 821.0: Woodlands and Forestry; 903: Information Science; 921: Applied Mathematics; 921.4: Combinatorial Mathematics, Includes Graph Theory, Set Theory

分页: 591-597

创建日期: 2014-04-16

卷: 36

摘要语言: English

收录号: 20141617586355

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-04-21

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Algorithm performance, Collection of documents, Dimensionality reduction, Document Representation, Documents similarity, Domain concepts, Feature vectors, Similarity computing, Domain concepts tree, Metadata feature vector, Metadata of documents

标题: Computation of document similarity based on metadata and domain concept tree

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第一个可用: 2014-04-21

语言: 英文

Preparation and photocatalytic activity of Ag/resin composite

作者: Xu, Zhibing 1 ; Yan, Jiaping 2 ; Zhang, Xiaoqing 3 ; Lu, Wuyang 3 ; Xu, Jinmo 3

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Anqing Normal University, Anqing 246003, China zhingbing7585@sohu.com 2 Anhui University of Science and Technology, Huainan 232001, China 3 School of Resources and Environment, Anqing Normal University, Anqing 246003, China

出版物信息: Xiyou Jinshu Cailiao Yu Gongcheng/Rare Metal Materials and Engineering 43.5 (Jan 1, 2014): 1266-1268.

[ProQuest 文档链接](#)

摘要 (English): The Ag/resin composite was prepared by ion exchange and photoreduction with cation resin as a template. The samples were characterized by SEM, EDS and XPS. The result indicates that the diameter of the Ag/resin composite is 300~600 μm , and the size of the silver nanocrystals on the cationic resin is between 10~80 nm. Irradiations were performed with UV light and the sunlight, and methyl orange solution was used as object, and the photocatalytic activity of Ag/resin composite was studied. The results show that the Ag/resin composite has good photocatalytic activity.

ISSN: 1002185X

主题: Complexation (主要); Azo dyes; Dyes; Photocatalysis; Resins; Silver

出版商: Rare Metals Materials and Engineering Press

出版日期: Jan 1, 2014

出版物名称: Xiyou Jinshu Cailiao Yu Gongcheng/Rare Metal Materials and Engineering

出版物类型: Journal

分类: 547.1: Precious Metals; 802.2: Chemical Reactions; 803: Chemical Agents and Basic Industrial Chemicals; 815.1.1: Organic Polymers

分页: 1266-1268

创建日期: 2014-06-29

卷: 43

摘要语言: English

收录号: 20142617874051

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-07-06

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Cation resins, Cationic resins, Methyl Orange, Methyl orange solution, Photo-reduction, Photocatalytic activities, Silver nanocrystals, Ag, Cationic resin

标题: Preparation and photocatalytic activity of Ag/resin composite

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第一个可用: 2014-07-06

语言: 英文

Distribution and sources of polycyclic aromatic hydrocarbons (PAHs) on glass surface of industrial zone in Shanghai

作者: Yu, Ying-Peng 1 ; Yang, Yi 1 ; Liu, Min 1 ; Wang, Qing 2 ; Zheng, Xin 1 ; Liu, Ying 1

1 Key Laboratory of Geographic Information Science, Ministry of Education, Department of Geography, East China Normal University, Shanghai 200062, China mliu@geo.ecnu.edu.cn 2 Key Laboratory of Geographic Information Science, Ministry of Education, Department of Geography, East China Normal University, Shanghai 200062, China, Department of Geography, Anhui Normal University, Wuhu 241003, China

出版物信息: Zhongguo Huanjing Kexue/China Environmental Science 34.1 (Jan 1, 2014): 219-224.

[ProQuest 文档链接](#)

摘要 (English): Sixteen priority control polycyclic aromatic hydrocarbons (PAHs) on glass surface from major industrial areas in Shanghai were quantitatively analyzed by GC-MS. High levels of PAHs were observed. Average concentrations of PAHs from the Baoshan Industrial Zone, Wu Jing Chemical Industry Zone and Jinshan Chemical Industry Park were 10.66, 16.48, 31.94 $\mu\text{g}/\text{m}^2$, while those of control sites were 2.70, 8.86, 4.18 $\mu\text{g}/\text{m}^2$, respectively. The PAHs compositions were dominated by 3 and 4 rings PAHs, which accounted for 25% and 47% of Σ_{16} PAHs, while 5 and 6 rings PAHs accounted for 14% and 9% of Σ_{16} PAHs, respectively, and 2 rings PAHs only accounted for 5%. The most abundant PAHs were phenanthrene, fluorene, pyrene and chrysene. The source apportionment showed that the PAHs mainly came from the combustion of coal and coke, and partly derived from petroleum sources. The concentration of BaP_{eq} (benzo[a] pyrene equivalent) varied from 0.07 to 3.23 $\mu\text{g}/\text{g}$, and the major carcinogenic contributor of 16PAHs were benzo (a) pyrene, benzo (b) fluoranthene, benzo (k) fluoranthene, dibenzo (a, h) anthracene.

ISSN: 10006923

主题: Coal combustion (主要); Anthracene; Aromatic hydrocarbons; Chemical industry; Glass; Pyrene

出版商: Tsinghua University

出版日期: Jan 1, 2014

出版物名称: Zhongguo Huanjing Kexue/China Environmental Science

出版物类型: Journal

分类: 521: Fuel Combustion and Flame Research; 524: Solid Fuels; 804.1: Organic Compounds; 805: Chemical Engineering, General; 812.3: Glass

分页: 219-224

创建日期: 2014-03-04

卷: 34

摘要语言: English

收录号: 20141017419623

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-05

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Glass surfaces, Industrial zones, Polycyclic aromatic hydrocarbons (PAHS), Shanghai, Source apportionment, Glass surface, Industrial zone

标题: Distribution and sources of polycyclic aromatic hydrocarbons (PAHs) on glass surface of industrial zone in Shanghai

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第一个可用: 2014-03-05

语言: 英文

Effects of city buildings on content and distribution of polycyclic aromatic hydrocarbons in adjacent soil

作者: Yu, Ying-Peng 1 ; Yang, Yi 1 ; Liu, Min 1 ; Lu, Min 1 ; Zheng, Xin 1 ; Wang, Xin 1 ; Wang, Rui-Qi 1 ; Liu, Ying 1 ; Wang, Qing 2

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出版物信息: Zhongguo Huanjing Kexue/China Environmental Science 34.2 (Jan 1, 2014): 452-458.

[ProQuest 文档链接](#)

摘要 (English): Sixteen priority control polycyclic aromatic hydrocarbons (PAHs) were analyzed in twenty surface soil samples collected from the plinth or apron edges of the building (B) and 5-meter sites away from the building (B-5), to discuss the impacts of urban buildings on the level and distribution of PAHs from the surrounding soil. The results showed that the concentration of PAHs ranged from 824 to 8960 ng/g in soil at B, with an average of 2649 ng/g, PAHs in B-5 varied from 673 PAHs in to 1706 ng/g with an average of 1297 ng/g which were significantly lower than that of site B. The distribution profile of PAHs was mainly dominated by 4~5 ring PAHs in the study area. Fl, Pyr, InP and BghiP in soil were dominant species both at B and B-5 and accounted for 48% and 45% of total mass PAHs, respectively. HJ-5, AJ, AJ-5, EB-5 and TC-5 were in the moderate degree of pollution (600~1000 ng/g), and the others were categorized heavily polluted (>1000 ng/g)

by reference to Maliszewska-Kordybach soil standard. Soil TOC exhibited the trend of enrichment at B relative to at B-5, and there was no clear correlation with PAHs. BaA, Chry, B(b+k)F, BaP, InP, and DahA were major contributor to TEQBaP concentration. The source apportionment showed that soil PAHs at B and B-5 are mainly originated from coal, gasoline and diesel combustion, and PAHs at B-5 might be partly from oil spill.

ISSN: 10006923

主题: Soil pollution (主要); Buildings; Coal combustion; Oil spills; Polycyclic aromatic hydrocarbons; Soils; Urban growth

出版商: Tsinghua University

出版日期: Jan 1, 2014

出版物名称: Zhongguo Huanjing Kexue/China Environmental Science

出版物类型: Journal

分类: 402: Buildings and Towers; 403.1: Urban Planning and Development; 483.1: Soils and Soil Mechanics; 521: Fuel Combustion and Flame Research; 524: Solid Fuels; 804.1: Organic Compounds; 914.1: Accidents and Accident Prevention

分页: 452-458

创建日期: 2014-03-12

卷: 34

摘要语言: English

收录号: 20141117454054

数据库: Ei Compendex®; 1800 to date (1800 - current)

文档状态: New

文档类型: Article

更新: 2014-03-28

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Degree of pollutions, Diesel combustion, Distribution characteristics, Distribution profiles, Polycyclic aromatic hydrocarbons (PAHS), Source apportionment, Surrounding soils, Urban areas, Soil

标题: Effects of city buildings on content and distribution of polycyclic aromatic hydrocarbons in adjacent soil

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第一个可用: 2014-03-28

语言: 英文

Toxic effect of cadmium on *Microcystis aeruginosa* and *Scenedesmus obliquus*

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摘要 (English): Toxic effect of cadmium on *Microcystis aeruginosa* Kutz. and *Scenedesmus obliquus* (Turp.) Kutz were researched by using different concentrations of Cd^{2+} . The results showed the growth of *S. obliquus* was accelerated in Cd^{2+} concentration of 0.1 mg/L, and decreased in Cd^{2+} concentration over 0.15 mg/L. Toxicant could promote the growth at low concentration while restrain at high concentration, which might be an effect of hormesis. But *M. aeruginosa* was more sensitive to Cd^{2+} with the growth obviously inhibited when the concentrations of Cd^{2+} were 0.05 mg/L and treat 72 h, and the inhibitory effect was obvious with increasing Cd^{2+} . The membrane permeability of the two algae changed under the stress of Cd^{2+} , and protein and nucleic acid contents of two freshwater algae rose up. The photos of scanning electron-microscopy showed that the superficial flocs of algae increased with the rise of Cd^{2+} concentration, especially for *M. aeruginosa*. Meanwhile, O_2 contents raised and the POD and CAT activities in the two algae all increased with the rise of Cd^{2+} at the early stage. The two algae could absorb Cd^{2+} , and *S. obliquus* had more adsorption ability than *M. aeruginosa* at the unit cell. The results indicated that the main toxic mechanisms of Cd^{2+} imposing on two algae involved the superoxide anion radical generation that induced the physiological and biochemical changes of the algae, and hurt the algae. Compared with the *M. aeruginosa*, *S. obliquus* not only had a better tolerant of Cd^{2+} , but a better adsorption ability of Cd^{2+} . It indicates that *S. obliquus* has the potential of being a biological material to deal with water Cd^{2+} .

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主题: Pollution (主要); Adsorption; Algae; Cadmium; Industrial poisons; Nucleic acids; Oxygen

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文档类型: Article

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来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Aeruginosa, Membrane permeability, Nucleic acid contents, S. obliquus, Scenedesmus obliquus, Scenedesmus obliquus (Turp.) Kutz, Superoxide anion radicals, Toxic effect, M. aeruginosa

标题: Toxic effect of cadmium on *Microcystis aeruginosa* and *Scenedesmus obliquus*

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第一个可用: 2014-03-28

语言: 英文

Distribution and source apportionment of polycyclic aromatic hydrocarbons in *Cinnamomum Camphora* leaves in Shanghai urban area

作者: Liu, Ying 1 ; Liu, Min 1 ; Yang, Yi 1 ; Lu, Min 1 ; Yu, Ying-Peng 1 ; Wang, Qing 2 ; Zheng, Xin 1

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出版物信息: *Zhongguo Huanjing Kexue/China Environmental Science* 34.7 (Jan 1, 2014): 1855-1862.

[ProQuest 文档链接](#)

摘要 (English): Sixteen priority-controlled polycyclic aromatic hydrocarbons (PAHs) in *cinnamomum camphora* leaves from Shanghai urban area were analyzed by GC-MS. The results showed that concentrations of total PAHs, carcinogenic PAHs and BaP_{eq} ranged from 199.14 to 488.77 ng/g, 56.63 to 209.37 ng/g and 4.39 to 14.80 ng/g, respectively with the highest values in industrial areas and lowest levels in park areas. The PAHs concentrations in traffic and business areas were much higher than those in park areas and lower than those in industrial areas. The PAHs were dominated by 3 and 4 ring compounds, which accounted for 31.60% and 54.25% of Σ 16PAHs, respectively, while 2 and 5 rings PAHs accounted for 5.83% and 5.97% of Σ 16PAHs, respectively, and 6rings PAHs only accounted for 2.35%. The most abundant PAHs were phenanthrene, chrysene, fluoranthene and pyrene. In industrial areas, concentrations of napalthane were significantly higher than those in other functional areas of Shanghai. The source apportionment showed that the PAHs mainly result from the incomplete combustion of fossil fuels.

ISSN: 10006923

主题: Polycyclic aromatic hydrocarbons (主要); Environmental engineering

出版商: Chinese Society for Environmental Sciences

出版日期: Jan 1, 2014

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出版物类型: Journal

分类: 454: Environmental Engineering; 804.1: Organic Compounds

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更新: 2014-08-11

来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Carcinogenic PAHs, Cinnamomum camphora, Functional areas, Incomplete combustion, PAHs, Polycyclic aromatic hydrocarbons (PAHS), Shanghai City, Source apportionment, Cinnamomum camphora leaves

标题: Distribution and source apportionment of polycyclic aromatic hydrocarbons in Cinnamomum Camphora leaves in Shanghai urban area

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第一个可用: 2014-08-11

语言: 英文

Experimental demonstration of intracavity double resonance for 9.2 GHz frequency difference light and its spatial separation

作者: Ma, Rong 1 ; Li, Yuan 2 ; Feng, Jingliang 3 ; Zhang, Junxiang 1

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University, Shanghai 200062, China

出版物信息: Zhongguo Jiguang/Chinese Journal of Lasers 41.4 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): The lock of double resonance frequency and spatial separation of two lights with frequency difference of 9.2 GHz in a three-mirror ring cavity and Mach-Zehnder (M-Z) interferometer are designed and confirmed. The double resonance for the two lights is accomplished when cavity length is 391.3 mm, and frequency difference is 9.2 GHz. And then, the two beams are spatial separated with unbalanced M-Z interferometer whose two arms optical path difference is 81.5 mm and phase difference is $\pi/2$. The device lays an experimental foundation for the realization of the optical quantum exchange with a coherent atomic medium in an optical cavity.

DOI: <http://dx.doi.org/10.3788/CJL201441.0418001>

ISSN: 02587025

主题: Resonance (主要); Atoms; Mach-Zehnder interferometers; Separation

出版商: Science Press

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标识符 (关键字): Atomic and molecular physics, Atomic coherence, Double resonance, Experimental demonstrations, Frequency differences, Mach zehnder interferometers (M Z), Optical path difference, Unbalanced Mach-Zehnder interferometer, Atomic coherence effect

标题: Experimental demonstration of intracavity double resonance for 9.2 GHz frequency difference light and its spatial separation

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第一个可用: 2014-06-01

语言: 英文

Research on the absorption property of defect layer in photon crystals

作者: Ma, Ji 1 ; Wu, Xiangyao 1 ; Liu, Xiaojing 1 ; Zhang, Siqi 1 ; Li, Hong 1 ; Wang, Jing 1 ; Ba, Nuo 1 ; Yin, Xinguo 2 ; Guo, Yiqing 3

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出版物信息: Zhongguo Jiguang/Chinese Journal of Lasers 41.3 (Jan 1, 2014).

[ProQuest 文档链接](#)

摘要 (English): The absorption property of one-dimensional photonic crystals with defect layer by the approach of transmission matrix is studied. In the photonic crystals, the medium layers are nonmetal, and the defect layer is metal. The relationship between absorption of real material and wavelength is given out, and then the absorption property of the photonic crystals is studied systematically, which is made up of arbitrary material. The effects of the incident angle, the refractive index of defect layer, the refractive index of medium layer, the thickness of medium layer and the periodic structure on the absorption property in the one-dimensional photonic crystals are given. Some valuable results are obtained. By adjusting the parameters of the photonic crystal, the affect of these parameters on the absorption property of the photonic crystals is found, which provides important theoretical basis for the design and preparation of photonic crystals.

DOI: <http://dx.doi.org/10.3788/CJL201441.0306002>

ISSN: 02587025

主题: Photonic crystals (主要); Crystal defects; Optoelectronic devices; Photons; Refractive index

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来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Absorption property, Defect layers, Defect model, Incident angles, One dimensional photonic crystal, Photon crystals, Transmission matrix, Optoelectronics

标题: Research on the absorption property of defect layer in photon crystals

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第一个可用: 2014-04-21

语言: 英文

Dual-pulse laser-induced breakdown spectroscopy of Al element in AlCl₃ aqueous and mixed compound solutions

作者: Wang, Li 1 ; Xu, Li 1 ; Zhou, Yu 2 ; Zheng, Xianfeng 2 ; Ji, Xuehan 2 ; Yao, Guanxin 2 ; Cui, Zhifeng 2

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出版物信息: Zhongguo Jiguang/Chinese Journal of Lasers 41.4 (Jan 1, 2014).

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摘要 (English): By home-made experimental setup with aqueous jets and dual-pulse laser-induced breakdown spectroscopy (LIBS) technique, the dual-pulse and single pulse LIBS are applied to the detection of Al trace element in AlCl₃ aqueous and mixed compound solution jets. The optimum parameters of dual-pulse and single pulse LIBS experiment are presented. Both the dual-pulse and single pulse LIBS detection limits of mass fraction of Al element in AlCl₃ aqueous and mixed compound solutions are obtained as 26.79×10^{-6} , 28.85×10^{-6} and 11.93×10^{-6} , 14.46×10^{-6} respectively under the optimum experiment conditions. It is shown that detection sensitivity of dual-pulse LIBS is enhanced dramatically compared to the single pulse case.

DOI: <http://dx.doi.org/10.3788/CJL201441.0415003>

ISSN: 02587025

主题: Atomic emission spectroscopy (主要); Aluminum; Experiments; Spectroscopy; Trace analysis

出版商: Science Press

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来源归属: Ei Compendex, © Publisher specific

标识符 (关键字): Detection limits, Detection sensitivity, Dual-pulse, Experiment condition, Laserinduced breakdown spectroscopy (LIBS), Limit of detection, Liquid jets, Optimum parameters, Laser-induced breakdown spectroscopy, Liquid jet

标题: Dual-pulse laser-induced breakdown spectroscopy of Al element in AlCl_3 aqueous and mixed compound solutions

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第一个可用: 2014-06-01

语言: 英文

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