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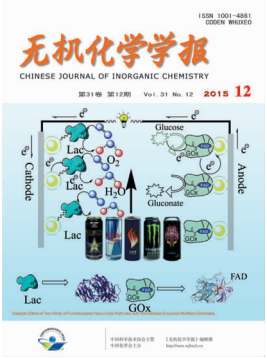
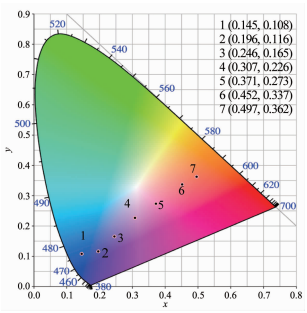
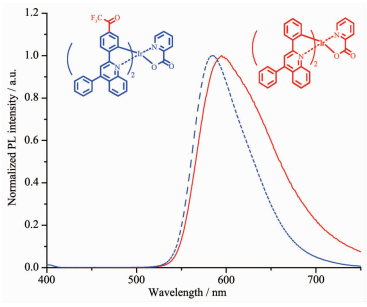


Articles



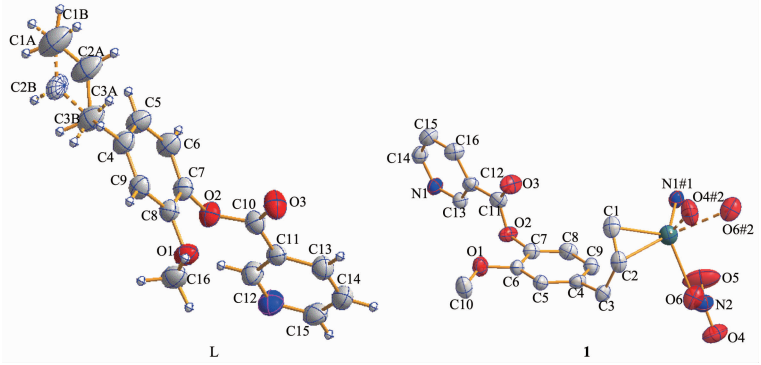
All of blue, white and red emission can be achieved by tuning the relative ratio of Bi^{3+} and Eu^{3+} in $CaSb_2O_6$:Bi^{3+}, Eu^{3+}, which indicates that $CaSb_2O_6$:Bi^{3+}, Eu^{3+} can serve as promising phosphors for white-light LEDs.



With the modification of trifluoroacetyl group, complex $Ir(tfapq)_2pic$ have a blue shift emission wavelength, sharp peak, higer quantum yield, shorter lifetime and higher thermal stability. The OLED devices based on $Ir(tfapq)_2pic$ show maximum external quantum efficiency of 12.65% and the corresponding efficiency is 22.14 $cd \cdot A^{-1}$.

Syntheses, Crystals and Luminescence of Silver(I) Complexes with Metal-Olefin Binding Interactions (English)

LIU Zhen-Xiang, CHEN Yun, LUO Xiao-Hui, DIAO Yin-Jun, WU Chang-Sheng

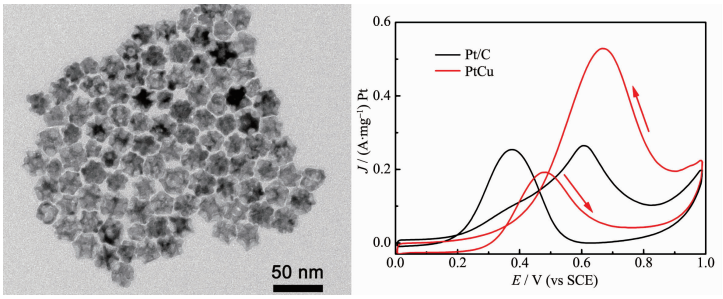


The ligand (L) is connected to form the 3D by the weak C–H···O hydrogen bonds, and $[AgL(NO_3)]_n$ (**1**) is connected by silver-alkene interaction and Ag···O weak interactions. L and **1** show similar emission and excitation spectra.

DOI:10.11862/CJIC.2015.304
Chinese J. Inorg. Chem., **2015**,**31**:2291-2297

Facile Synthesis of Concave Dendritic PtCu Nanoparticles with Enhanced Methanol Electro-oxidation Activities

MEI Su-Juan, WU Jun-Jie, LU Shuang-Long, CAO Xue-Qin, GU Hong-Wei, TANG Ming-Hua

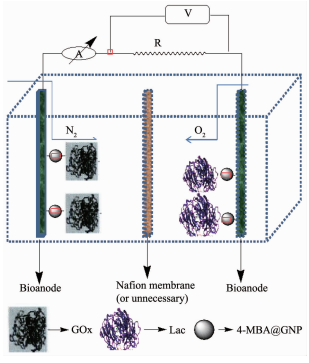


Concave dendritic PtCu bimetallic nanocatalysts (PtCu NCDs) prepared with o-phenylenediamine exhibits an excellent eletrocatalytic activity and strong poisoning resistance due to the unique concave dendritic morphology and synergistic effect of Pt and Cu components.

DOI:10.11862/CJIC.2015.317
Chinese J. Inorg. Chem., **2015**,**31**:2298-2304

Catalytic Effect of Two Kinds of Functionalized Nano-Gold Particles with Immobilized Enzymes Modified Electrodes

ZENG Han, YANG Yang, ZHAO Shu-Xian

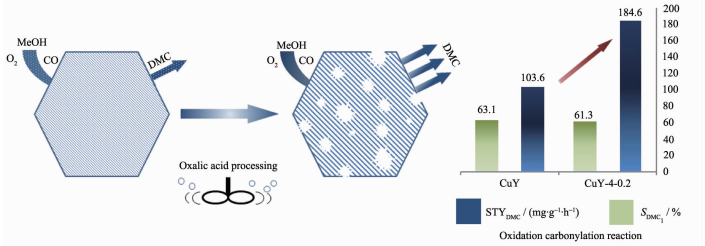


An enzymatic fuel cell fabricated by 4-MBA surface-anchored nano-gold particles with entrapped enzymes based electrode as bioanode and biocathode showed favorable energy out-put performance.

DOI:10.11862/CJIC.2015.316
Chinese J. Inorg. Chem., **2015**,**31**:2305-2314

Effects of Acid Treatment on Pore Structure and Oxidation Carbonylation Performance of CuY Catalysts

LI Yan-Jiao, YAN Li-Fei, ZHENG Hua-Yan, LI Zhong

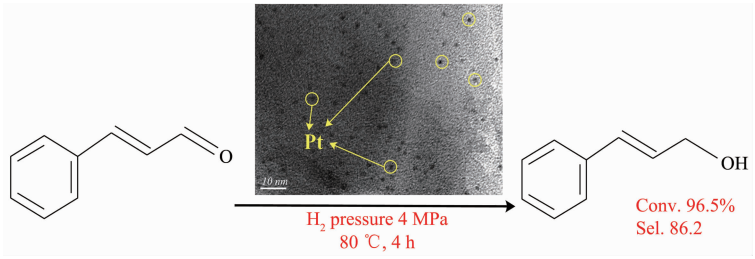


NaY zeolite framework aluminum was leached out by oxalic acid, resulting in increase of the framework n_{Si}/n_{Al} ratio, decrease of the relative crystallinity, and formation of mesopores which are in favor of diffusion for the product molecules and significantly affect the catalytic activity.

DOI:10.11862/CJIC.2015.313
Chinese J. Inorg. Chem., **2015**,**31**:2315-2323

Pt/MIL-101(Cr) for the Selective Hydrogenation of Cinnamaldehyde to Cinnamyl Alcohol

LU Ning-Yue, ZHOU Fan, FAN Bin-Bin, LI Rui-Feng

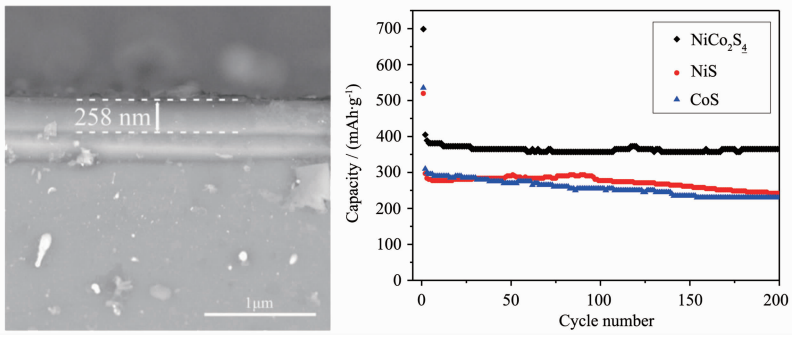


Pt/MIL-101(Cr) catalysts were prepared by a facile impregnation method and used as an efficient catalyst for selective hydrogenation of cinnamaldehyde.

DOI:10.11862/CJIC.2015.314
Chinese J. Inorg. Chem., **2015**,**31**:2324-2330

Pulsed Laser Deposited $NiCo_2S_4$ Thin Films and Investigation of Their Electrochemical Properties

LIU Jia-Bin, ZHANG Hui, CUI Yan-Hua, LIU Xiao-Jiang, LIU Jin-Song

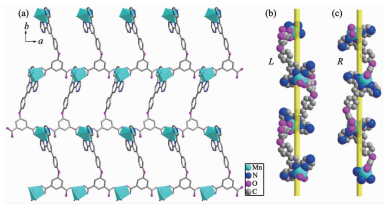


DOI:10.11862/CJIC.2015.306
Chinese J. Inorg. Chem., **2015**,**31**:2331-2336

$NiCo_2S_4$ nano-thin film with 258 nm thickness shows enhanced electrochemical performance than NiS and CoS films as electrodes for lithium ion battery.

Syntheses and Crystal Structures of Mn(Ⅱ) and Ca(Ⅱ) Coordination Polymers Based on 5-(4-(2,6-Di(pyrazin-2-yl) pyridin-4-yl)phenoxy)isophthalic Acid

WANG Gui-Xian, CAO Ke-Li, XIA Yan, FENG Yun-Long

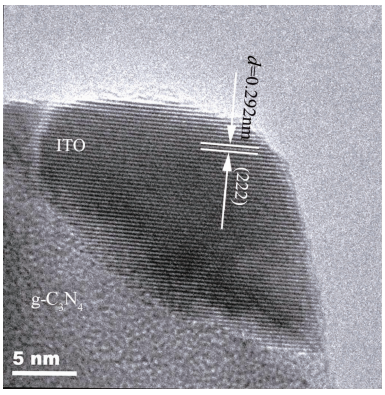


1 features a 3D supramolecular network built by different monochiral sheets with (3,3)-connected 2D net. **2** displays a 1D inorganic-chain linked by carboxylate oxygen atoms of L^2 with Ca(Ⅱ) ions.

DOI:10.11862/CJIC.2015.311
Chinese J. Inorg. Chem., **2015**,**31**:2337-2342

Preparation and Photocatalytic Performance of ITO/g-C_3N_4 Heterojunction Photocatalysts for Hydrogen Evolution from Water

ZHAO Xue-Guo, HUANG Li-Qun, LI Jia-Ke



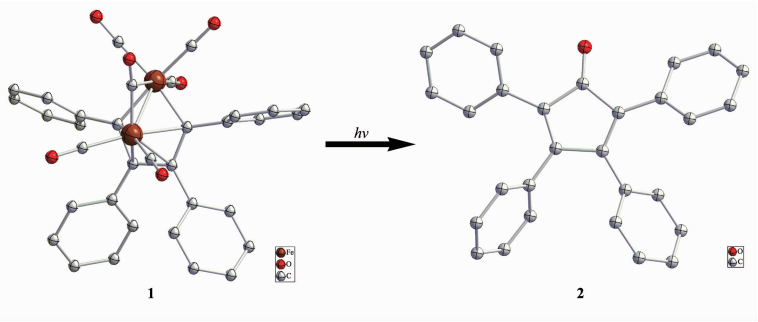
ITO/g-C_3N_4 heterojunction is composed of g-C_3N_4 and ITO nanoparticles with cubic crystalline structure.

DOI:10.11862/CJIC.2015.293
Chinese J. Inorg. Chem., **2015**,**31**:2343-2348

Structural Stability of Ferracyclopentadiene Complex $(\mu_2, \eta^4\text{-}C_4Ph_4)Fe_2(CO)_6$

HAN Li-Min, ZHAO Rui-Xia, WU Le, GAO Yuan-Yuan, ZHU Ning, SU Qian, HONG Hai-Long, SUO Quan-Ling

DOI:10.11862/CJIC.2015.312
Chinese J. Inorg. Chem., **2015**,**31**:2349-2357

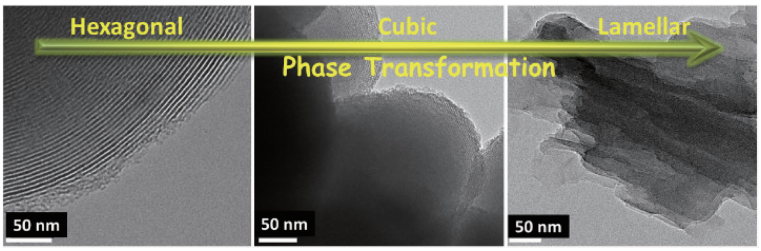


The light decomposition rate of ferracyclopentadiene complex **1** is related to light source and wavelength. Tetraphenylcyclopentadienone **2** is the main product from light decomposition reaction of complex **1**.

Formation Mechanism of Highly Ordered MCM-48 via Phase Transformation

YUAN En-Hui, XING Jun-Ling, PANG Jun-Ling, JIANG Shu-Hua, JIANG Jin-Gang, ZHANG Kun

DOI:10.11862/CJIC.2015.310
Chinese J. Inorg. Chem., **2015**,**31**:2358-2364

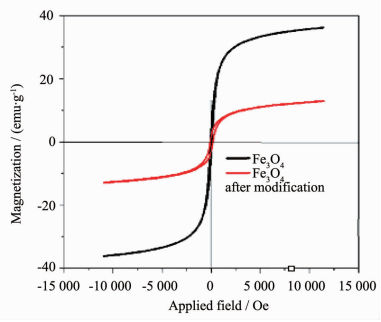


The phase transformation from MCM-41 to MCM-48 and MCM-50 with temperature is described in one-pot synthesis, and their structure change strongly depends on the type and content of counter anions adsorbed onto the surfactant template in the mesopores.

Synthesis and Anticoagulant Properties of Water Soluble Nano-Oxides Fe_3O_4-Ferulic Acid Hybrid Material

GAO Qi-Kuan, WANG Xi-Cun, SONG Yu-Min

DOI:10.11862/CJIC.2015.301
Chinese J. Inorg. Chem., **2015**,**31**:2365-2372

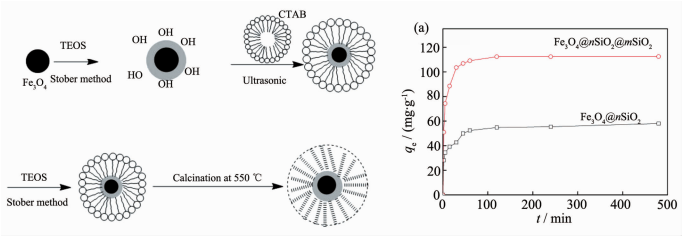


A dissoluble in water with paramagnet hybrid material of Fe_3O_4-DBI-PEG-ferulic acid was prepared. The material has better anticoagulant action than that of ferulic acid.

Double-Layer SiO_2 Encapsulated Fe_3O_4 Composite: Preparation and Dye Absorption Properties

LIU Yun-Fang, REN Sen, WU Ri-Liang, LI Yang-Yang, SHI Xiang-Hui, CHI Wei-Dong, HUANG Qi-Gu

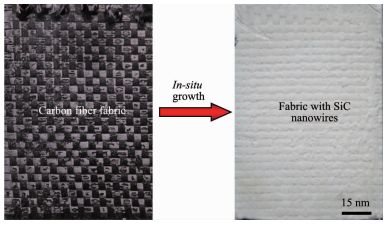
DOI:10.11862/CJIC.2015.302
Chinese J. Inorg. Chem., **2015**,**31**:2373-2378



SiO_2 encapsulated Fe_3O_4 composite with solid SiO_2 inner layer and porous SiO_2 outer layer was prepared by a modified Stober method. This composite has excellent dye absorption ability and retrievability.

In situ Growth of SiC Nanofibers on Carbon Fibers

DAI Ji-Xiang, ZHANG Zhao-Fu,
WANG Yong-Chang, WANG Shou-Hao,
SHA Jian-Jun

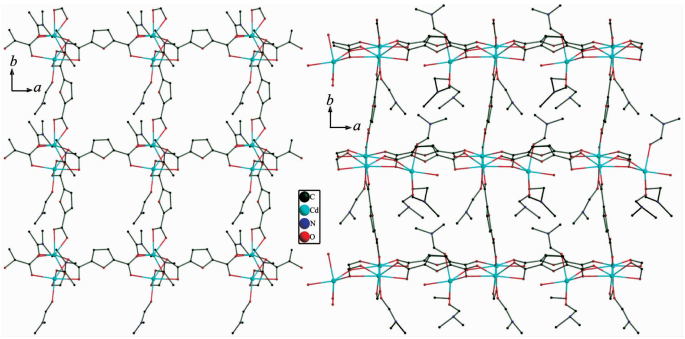


SiC nanofibers were synthesized on the carbon fiber fabrics by chemical vapor reaction without catalyst. The present process presents some inherent advantages, including the catalyst free, the cost efficiency and the high yield.

DOI:10.11862/CJIC.2015.309
Chinese J. Inorg. Chem., **2015**,**31**:2379-2384

Syntheses, Crystal Structures and Fluorescent Properties of Two 2D Cadmium(Ⅱ) Coordination Polymers

GUO Hai-Fu, LEI Jia-Mei, MA De-Yun

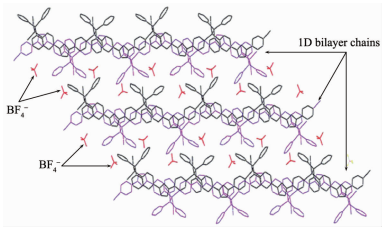


Two 2D cadmium coordination polymers (**1** and **2**) were prepared under solvothermal conditions based on 2,5-furandicarboxylic acid and $Cd^{Ⅱ}$ ions. The photoluminescence of **1** and **2** in solid state at room temperature have also been studied.

DOI:10.11862/CJIC.2015.307
Chinese J. Inorg. Chem., **2015**,**31**:2385-2392

Copper(I) Coordination Polymers with Extended $\pi\cdots\pi$ Interactions: Syntheses, Structures, Characterization and Luminescent Properties (English)

HUANG Ting-Hong, YAN Jie, YANG Hu,
ZENG Xian-Guang, YANG Yan

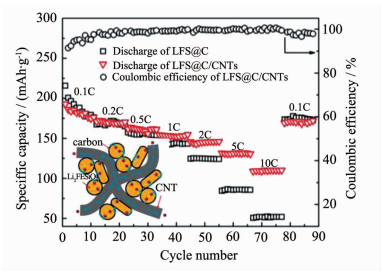


Two copper (I) coordination polymers $\{[Cu_2(4\text{-bpo})_2(CH_3CN)_2(PPh_3)_2](BF_4)_2\}_n$ (**1**) and $\{[Cu(4\text{-bpo})(CH_3CN)(dppe)_{0.5}]BF_4\}_n$ (**2**) have been synthesized and characterized. Complexes **1** and **2** consist of diverse and interesting 2D supramolecular structures formed by inter-chain interactions.

DOI:10.11862/CJIC.2015.305
Chinese J. Inorg. Chem., **2015**,**31**:2393-2400

Copolymer Template-Assisted Synthesis of Porous Li_2FeSiO_4@C/CNTs Nanocomposite as Cathode Material with High Rate Capability (English)

GOU Lei, ZHAO Kun, MAO Yi-Yang,
XIE Rong, FAN Xiao-Yong, LI Dong-Lin,
MA Shou-Long, TIAN Miao

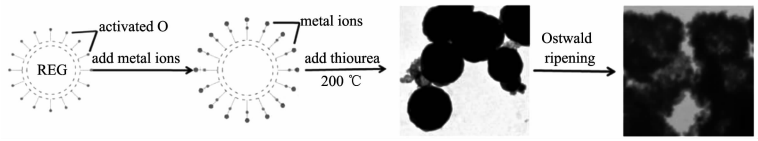


The porous Li_2FeSiO_4@C/CNTs nanocomposite with 3D conduction hybrid network exhibit a remarkable improvement in high-rate capability compared with nanoporous Li_2FeSiO_4@C.

DOI:10.11862/CJIC.2015.286
Chinese J. Inorg. Chem., **2015**,**31**:2401-2410

Preparation of Hollow Cu_2ZnSnS_4 Spheres via Solvothermal Method (English)

ZHANG Wei, TAO Hong-Xiu,
WANG Qiu-Shi, ZHANG Li-Na,
WANG Gui-Qiang

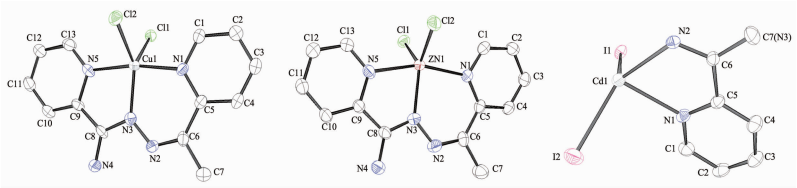


Hollow Cu_2ZnSnS_4 spheres were synthesized by a poly(ethylene glycol) (PEG) assisted solvothermal route. The formation mechanism of the hollow Cu_2ZnSnS_4 spheres was discussed.

DOI:10.11862/CJIC.2015.288
Chinese J. Inorg. Chem., **2015**,**31**:2411-2417

Cu(Ⅱ) , Zn(Ⅱ) and Cd(Ⅱ) Complexes with Picolinamide Azine Derived from 2-Acetyl Pyridine and 2-Picolinamide Hydrazone: Crystal Structures and Fluorescence Properties(English)

LI Xiao-Jing, XU Zhou-Qing, XU Jun,
WU Wei-Na, FAN Yun-Chang

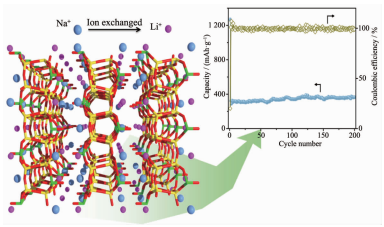


Three complexes $[(Cu)(L)(Cl)_2]$, $[(Zn)(L)(Cl)_2]$ and $\{[(Cd)_2(L)(I)_4]\}_n$ with a picolinamide azine ligand have been synthesized and characterized. All complexes are photoluminescent with the emission peaks corresponding to $\pi \rightarrow \pi^*$ transition of metal-perturbed intraligand.

DOI:10.11862/CJIC.2015.292
Chinese J. Inorg. Chem., **2015**,**31**:2418-2424

Layered Titanosilicates as Energy Storage Anode Materials for Lithium Ion Batteries (English)

LIU Mei-Pin, HU Yu-Xiang, DU Hong-Bin



Li-exchanged layered titanosilicate JDF-L1 was used as anode materials for lithium ion batteries and showed a discharge capacity of 364 mAh·g^{-1} at the 200th cycle with *ca.* 100% Coulombic efficiency and negligible loss of capacity, comparable with the lithium titanate anode.

DOI:10.11862/CJIC.2015.315
Chinese J. Inorg. Chem., **2015**,**31**:2425-2431

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