

无机化学学报

2015 年

第 31 卷

第 6 期

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CHINESE JOURNAL OF INORGANIC CHEMISTRY

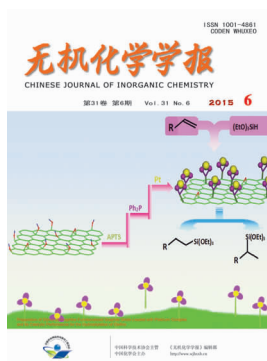
Vol.31

No.6

Jun. 2015

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Cover



Diphenylphosphine Functionalized Graphite Oxide Loaded with Platinum Complex: Preparation and Catalytic Performance for the Hydrosilylation of Olefins

DENG Sheng-Jun, ZHENG Qiang, RAO Fu-Yuan, LIN Ling-Zhi, ZHANG Ning

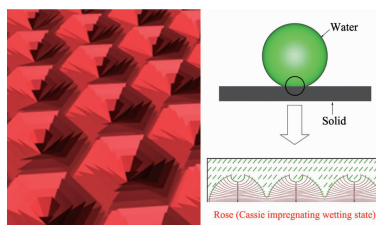
DOI:10.11862/CJIC.2015.178

Chinese J. Inorg. Chem., **2015**,**31**:1085-1090

Articles

Structure and Wetting Properties of Rose-Like Cobalt Hydroxide (English)

MA Mai-Xia, LIANG Jun-Fei,
DING Chun-Mei



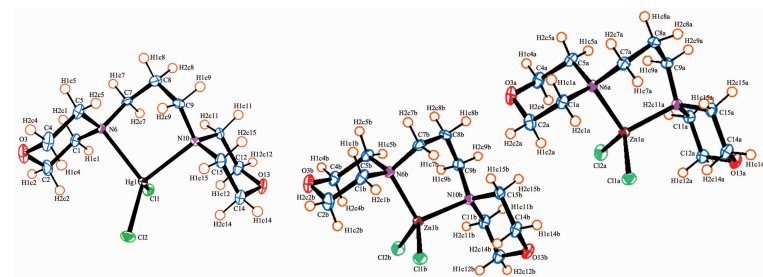
We have developed a facile solution process to synthesize the rose-like cobalt hydroxide microcrystals. Moreover, the surface of rose-like β -Co(OH)₂ film shows superhydrophobicity and high-adhesion.

DOI:10.11862/CJIC.2015.173

Chinese J. Inorg. Chem., **2015**,**31**:1071-1075

Complexation of 1,3-Dimorpholinopropane with Hg (II) and Zn (II) Salts: Syntheses, Crystal Structures and Antibacterial Studies (English)

Goudarziafshar Hamid, Yousefi Somaieh,
Abbasityula Yunes, Dušek Michal,
Eigner Václav, Rezaeivala Majid,
Özbek Neslihan



Two crystal structures of Hg(II) and Zn(II) complexes with 1,3-dimorpholinopropane was reported and their antibacterial activity was investigated.

DOI:10.11862/CJIC.2015.164

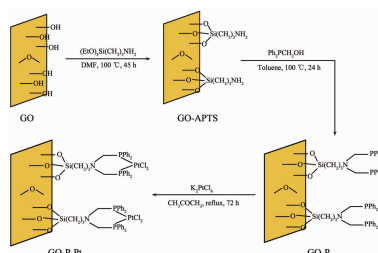
Chinese J. Inorg. Chem., **2015**,**31**:1076-1084

Diphenylphosphine Functionalized Graphite Oxide Loaded with Platinum Complex: Preparation and Catalytic Performance for the Hydrosilylation of Olefins

DENG Sheng-Jun, ZHENG Qiang,
RAO Fu-Yuan, LIN Ling-Zhi, ZHANG Ning

DOI:10.11862/CJIC.2015.178

Chinese J. Inorg. Chem., **2015**,**31**:1085-1090



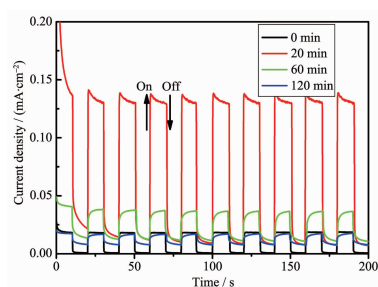
By immobilizing platinum complex onto functionalized graphite oxide, a heterogeneous catalyst was prepared, which was active for hydrosilylation of olefins with triethoxysilane.

Preparation and Photoelectrical Properties of Bi₂S₃ Quantum Dots Sensitized TiO₂ Nanorod-Arrays

LU Yong-Juan, JIA Jun-Hong

DOI:10.11862/CJIC.2015.155

Chinese J. Inorg. Chem., **2015**,**31**:1091-1098



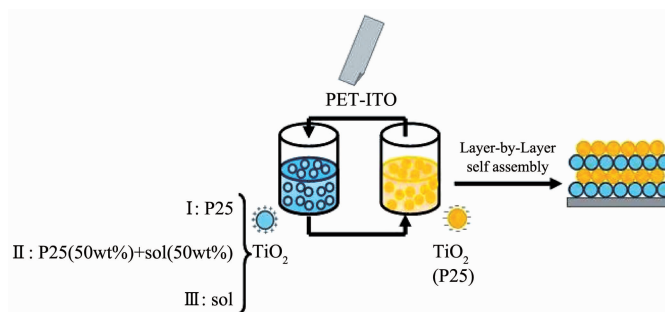
The TiO₂/Bi₂S₃ nanostructures have very intense photocurrent response when the light was regularly switched “on” and “off”, a series of almost identical electric signals can be obtained. The photocurrent density of TiO₂/Bi₂S₃ nanostructures for 20 min deposition of Bi₂S₃ exhibited almost 7.5 times larger than TiO₂ nanorod arrays.

Self Assembly TiO₂ Films on the Flexible Transparent Conductive Oxide Substrates: Preparation and Photoelectrochemical Activity

YUAN Su-Jun, ZHANG Qing-Hong, LEI Fang,
XIE Jian-Jun, SHI Ying

DOI:10.11862/CJIC.2015.165

Chinese J. Inorg. Chem., **2015**,**31**:1099-1104



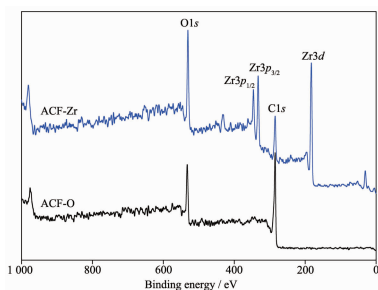
The all-nanoparticle TiO₂ films on the flexible transparent conductive oxide substrates were obtained through the layer-by-layer self assembling method, and the one with the highly uniform and dense structure showed a high photoelectrochemical property. During the preparation, the polyelectrolytes were replaced and the calcination was avoided.

Adsorption of Fluoride Ion by Zirconia Functionalized Activated Carbon Fiber

LIU Jing-Liang, ZONG En-Min, CHEN Huan,
XU Zhao-Yi

DOI:10.11862/CJIC.2015.152

Chinese J. Inorg. Chem., **2015**,**31**:1105-1111



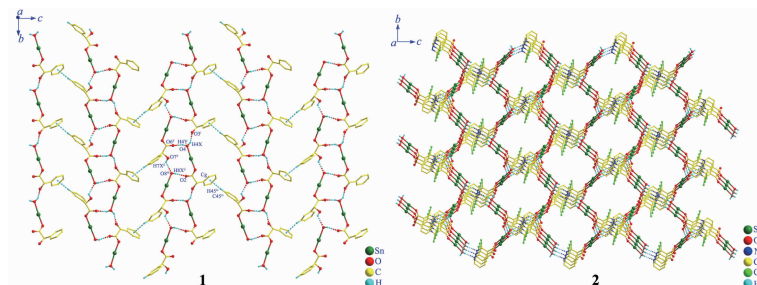
Zirconia functionalized activated carbon fiber (ACF-Zr) adsorbent was successfully prepared using the post-grafting method and its adsorptions for fluoride ion (F⁻) uptake were investigated in details.

Syntheses, Structures, Anti-tumor Activity of Tri(*n*-butyl)tin Carboxylates with Hydrogen-Bonded Network

KUANG Dai-Zhi, YU Jiang-Xi,
FENG Yong-Lan, ZHANG Fu-Xing,
JIANG Wu-Jiu, ZHU Xiao-Ming

DOI:10.11862/CJIC.2015.067

Chinese J. Inorg. Chem., **2015**,**31**:1112-1118

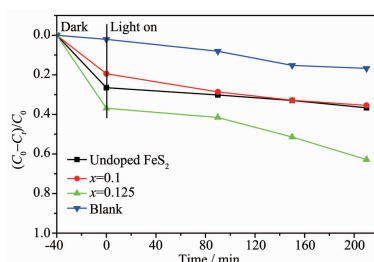


Ni-Doped FeS₂: Solvothermal Synthesis and the Visible-Light Photocatalytic Properties

LONG Fei, ZHANG Jin, ZHANG Ming-Yue,
HE Jin-Yun, WU Xiao-Li, ZOU Zheng-Guang

DOI:10.11862/CJIC.2015.179

Chinese J. Inorg. Chem., **2015**,**31**:1119-1124



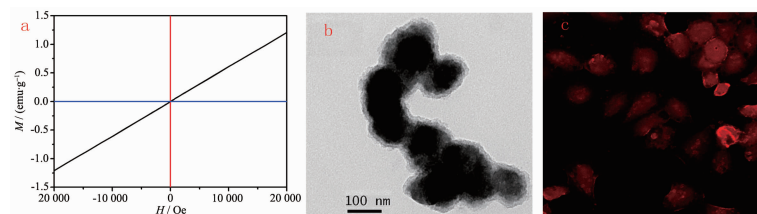
Nano sized Ni doping pyrite was gained via a simple solvothermal method. Appropriate amount of Ni doping facilitated the transformation of the marcasite to pyrite and its visible-light-driven photocatalytic performance was greatly enhanced. 62.8% Methylene blue (MB) was decomposed within 210 min using Ni_{0.125}Fe_{0.875}S₂ as photocatalyst, which was 26.2% higher than that of the pristine FeS₂.

Synthesis and Properties of Paramagnetic-Fluorescent Gd₂(CO₃)₃:Eu@SiO₂@APTES Core-Shell Structured Microspheres

WU Yan-Li, XU Xian-Zhu, WEN Jia,
XIAO Qiang, LI Yong-Xiu

DOI:10.11862/CJIC.2015.154

Chinese J. Inorg. Chem., **2015**,**31**:1125-1130



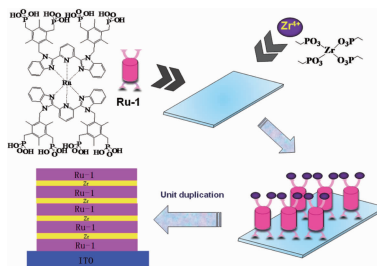
Monodisperse core-shell structured Gd₂(CO₃)₃:Eu@SiO₂@APTES microsphere (Fig.b) was successfully prepared via the stöber method by coating a layer of silica on the surface of Gd₂(CO₃)₃:Eu microspheres which derived from a simple urea assisted coprecipitation method. The paramagnetic property of the synthesized Gd₂(CO₃)₃:Eu@SiO₂@APTES microspheres were confirmed with its linear hysteresis plot (M-H) (Fig.a). And the microspheres can enter into living cancer cells and emit orange-red luminescence light due to the ⁵D₀→⁷F₂ transition of the Eu³⁺ ions (Fig.c).

Microwave-Assisted Synthesis of Ru(II) Complex and Self-Assembled Multilayer Film Formed by Alternating Layers of the Ru Complex

YANG Li, WANG Hua, LI Kong-Zhai,
WEI Yong-Gang, ZHU Xing

DOI:10.11862/CJIC.2015.151

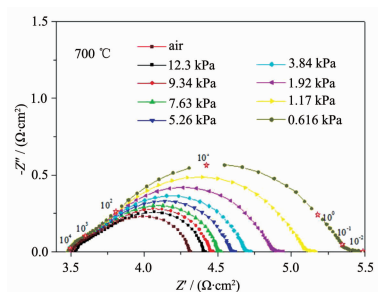
Chinese J. Inorg. Chem., **2015**,**31**:1131-1138



Multilayered assembly film of Ru-1 complex was synthesized, which self-assembled on the surface of ITO. The ITO modified by Ru-1 shows well photoelectric performance.

Preparation and Electrochemical Properties of LaBiMn₂O₆ Cathode for IT-SOFCs

XIAO Hui, SUN Li-Ping, ZHAO Hui,
HUO Li-Hua, Jean-Marc Bassat,
Aline Rougier, Sébastien Fourcade,
Jean-Claude Grenier



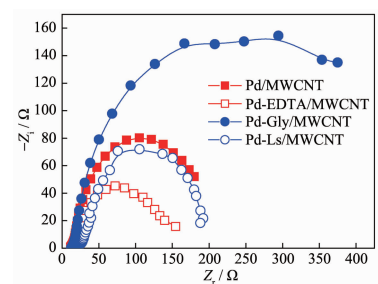
LaBiMn₂O₆(LBM) cathode for IT-SOFCs (inter mediate solid oxide fuel cells) has been prepared by solid state reaction. The polarization resistance of LBM decreases with temperature and reaches 0.71 Ω · cm² at 700 °C in air.

DOI:10.11862/CJIC.2015.153

Chinese J. Inorg. Chem., **2015**,*31*:1139-1144

Effect of Ligands on Formation and Electroactivity for Ethanol Oxidation of Pd Nano-Catalysts

CHEN Qing-Hua, YI Qing-Feng



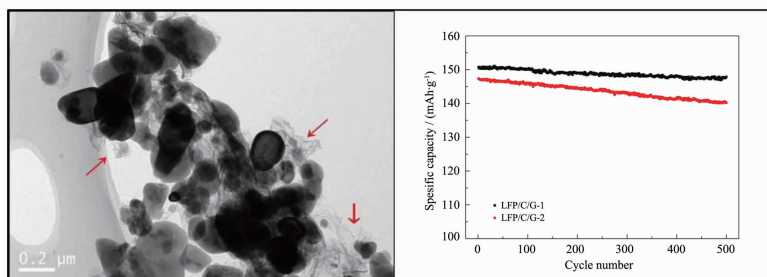
Formation and electro-activity of Pd nano-catalysts for ethanol oxidation are greatly influenced by ligands.

DOI:10.11862/CJIC.2015.171

Chinese J. Inorg. Chem., **2015**,*31*:1145-1152

Comparison on Properties of Lithium Iron Phosphate/Graphene Composite Prepared by Two Methods

HU Guo-Rong, PENG Qing-Yuan,
PENG Zhong-Dong, CAO Yan-Bing, DU Ke



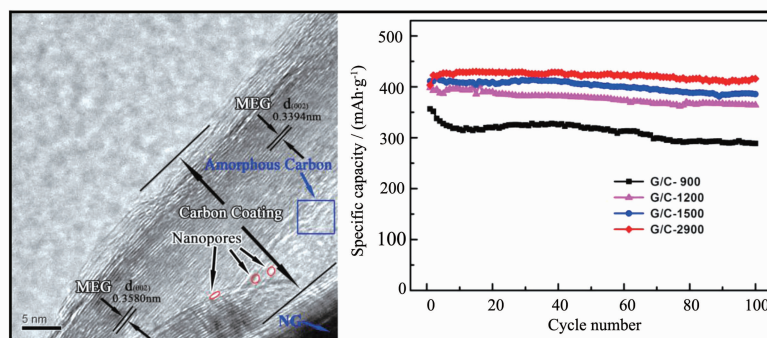
LiFePO₄/C/G-1 (Graphene-coated lithium iron phosphate *in situ*) shows excellent electrochemical performances compared with LiFePO₄/C/G-2(Graphene ex-situ-coated lithium iron phosphate). The initial discharge capacity was 158.15 and 150.5 mAh · g⁻¹ at 0.1C and 1C rate, respectively. After cycling for 500 times at 1C rate , the retention of discharge capacity was 98.3%.

DOI:10.11862/CJIC.2015.167

Chinese J. Inorg. Chem., **2015**,*31*:1153-1158

Effect of Heat Treatment Temperature on Electrochemical Performance of Graphite Composite Anode for Lithium Ion Battery

ZHENG An-Hua, YANG Xue-Lin,
XIA Dong-Dong, WU Xuan, WEN Zhao-Yin



The G/C-2900 sample can deliver the first charge capacity after the first activation of $423 \text{ mA} \cdot \text{g}^{-1}$, and keep the 100th charge capacity of $416 \text{ mA} \cdot \text{g}^{-1}$ with capacity retention rate of 98%.

DOI:10.11862/CJIC.2015.158

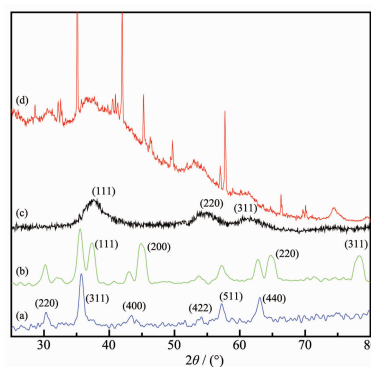
Chinese J. Inorg. Chem., **2015**,**31**:1159-1164

Preparation and Characterization of $\text{Fe}_3\text{O}_4/\text{PEI}/\text{Au}@\text{CdSe}/\text{CdS}$ Multifunctional Composite Materials

ZHOU Xiang, WANG Xiu-Ling,
LIU Yong-Jian, CHEN Yong-Bing, LIU Min

DOI:10.11862/CJIC.2015.150

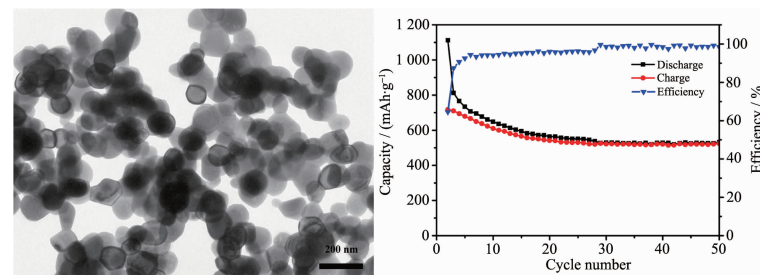
Chinese J. Inorg. Chem., **2015**,**31**:1165-1170



$\text{Fe}_3\text{O}_4/\text{PEI}/\text{Au}@\text{CdSe}/\text{CdS}$ nanoparticles are prepared successfully, which allows Au nanoparticles targeting fast and accurately. What's more, it is easy recovered, and is visible at the same time.

Fe_2O_3 Nanoparticles Prepared by Solid-State Thermolysis of Fe-Based Coordination Polymer and Their Enhanced Lithium Storage Properties

QI Dan-Dan, ZHANG Fang, JIANG Da-Guang,
QIN De-Cai, ZHANG Xiao-Gang



Fe_2O_3 nanoparticles with uniform size were prepared via a solid-state thermolysis procedure by using a freshly synthesized Fe-based coordination polymer as precursor. When used as anode material for lithium-ion batteries, the prepared Fe_2O_3 electrode could display enhanced electrochemical performance.

DOI:10.11862/CJIC.2015.159

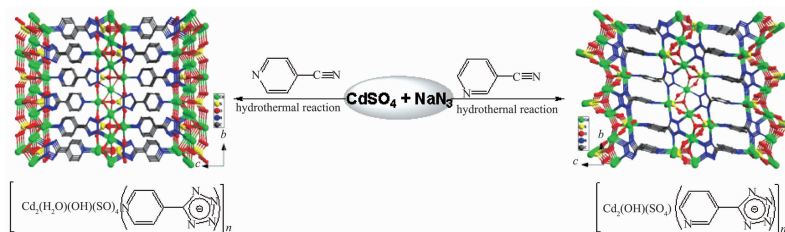
Chinese J. Inorg. Chem., **2015**,**31**:1171-1176

Syntheses and Characterization of Two Three-Dimensional Layered-Pillared Inorganic-Organic Hybrid Materials Constructed from Inorganic Cadmium Sulfate Layers and *in situ* Generated Organic 5-(Pyridyl)tetrazolate Ligands

ZHONG Di-Chang, LU Wen-Guan

DOI:10.11862/CJIC.2015.144

Chinese J. Inorg. Chem., 2015,31:1177-1184



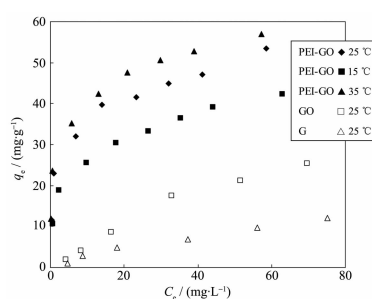
Two luminescent Cd(II) coordination polymers, namely $[\text{Cd}_2(\text{H}_2\text{O})(\text{OH})(\text{SO}_4)(4\text{-ptz})]_n$ (**1**, 4-Hptz=5-(4-pyridyl)tetrazole) and $[\text{Cd}_2(\text{OH})(\text{SO}_4)(3\text{-ptz})]_n$ (**2**, 3-Hptz=5-(3-pyridyl)tetrazole), present a 3D layered-pillared inorganic-organic hybrid framework constructed from inorganic cadmium sulfate layers and *in situ* generated organic 5-(pyridyl)tetrazolate pillared ligands.

Cr(VI) Adsorption on Polyethyleneimine Modified Graphite Oxide

WANG Jia-Hong, YIN Xiao-Long, JI Yan-Fen

DOI:10.11862/CJIC.2015.160

Chinese J. Inorg. Chem., 2015,31:1185-1193



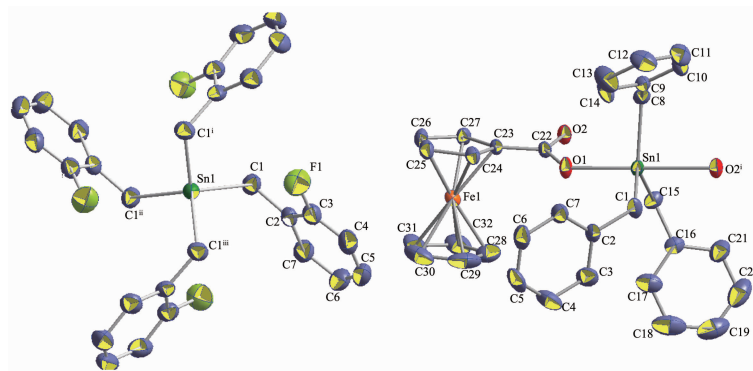
Polyethyleneimine modified graphite oxide with high content of amino groups was synthesized by grafting polyethyleneimine on the surface of graphite after oxidation and esterification. High adsorption capacity and superior regeneration properties make it a potential adsorbent for the removal of aqueous Cr(VI).

Syntheses, Crystal Structures and Properties of the Tetra(*o*-fluorobenzyl)tin and the Tribenzyltin Ferrocenecarboxylate

ZHANG Fu-Xing, KUANG Dai-Zhi, FENG Yong-Lan, WANG Jian-Qiu, YU Jiang-Xi, JIANG Wu-Jiu, ZHU Xiao-Ming

DOI:10.11862/CJIC.2015.157

Chinese J. Inorg. Chem., 2015,31:1194-1200



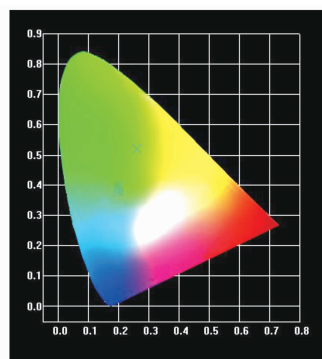
The tetra(*o*-fluorobenzyl)tin (**1**) and the tribenzyltin ferrocenecarboxylate (**2**) have been synthesized. The crystal structures of the complexes were determined by X-ray diffraction. The tin atoms have a distorted tetrahedral geometry and rendered five-coordinated in trigonal bipyramid structure.

Preparation and Luminescence Properties of Green Phosphors $\text{Ca}_3\text{Y}_2\text{Si}_3\text{O}_{12}:\text{Tb}^{3+}$, Ce^{3+} (English)

WU Jiang, ZHANG Ping, JIANG Chun-Dong, QIU Ze-Zhong

DOI:10.11862/CJIC.2015.136

Chinese J. Inorg. Chem., 2015,31:1201-1206



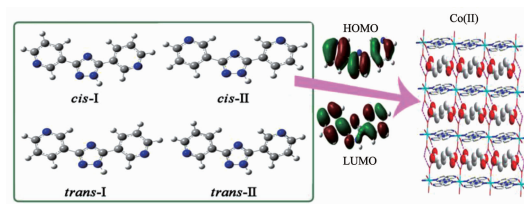
The phosphors of $\text{Ca}_3\text{Y}_2\text{Si}_3\text{O}_{12}$ doped by Tb^{3+} ion are good green-emitting silicate phosphors. The co-doping of Ce^{3+} ion can improve the spectral absorption wavelength range and the emission intensity.

A Cobalt(II) Coordination Compound with 1*H*-3-(3-Pyridyl)-5-(3'-pyridyl)-1,2,4-triazole: Synthesis, Crystal Structure, Thermostability and DFT Calculation of Ligand (English)

SUN Lin, LIU Huai-Xian, ZHOU Hui-Liang, LIU Xiang-Yu, SONG Wei-Ming, LI Bing, HU Qi-Lin

DOI:10.11862/CJIC.2015.172

Chinese J. Inorg. Chem., **2015**,**31**:1207-1214



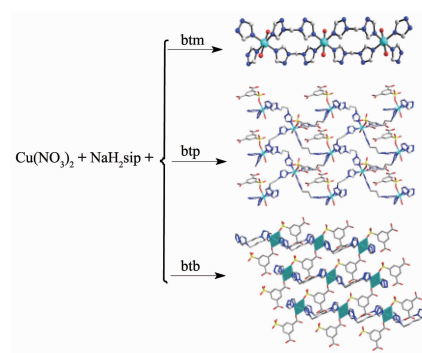
The calculated geometry and conformation of 3,3'-Hbpt ligand were applied to forecast and guide the design and synthesis of a Co(II)-containing coordination compound.

Copper(II) Complexes Based on 5-Sulfoisophthalate and Bis(1,2,4-triazol-1-yl)alkanes: Syntheses, Structures, and Properties (English)

LI Ting, LI Xin, ZHOU Shang-Yong, TIAN Li

DOI:10.11862/CJIC.2015.145

Chinese J. Inorg. Chem., **2015**,**31**:1215-1223

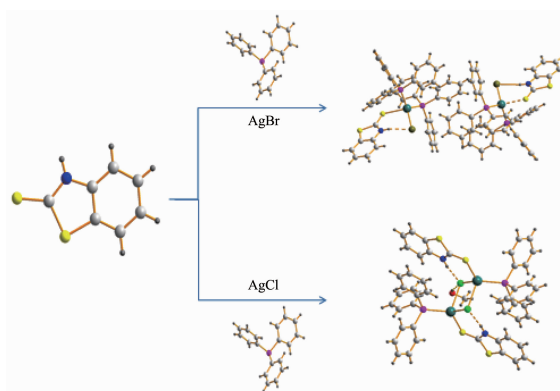


Syntheses, Crystal Structures and Spectroscopic Properties of Two Silver(I) Complexes with Heterocyclic Thione (English)

CUI Yang-Zhe, GENG Wen-Xiao, QIU Qi-Ming, GAO Sen, LIU Min, LI Zhong-Feng, JIN Qiong-Hua

DOI:10.11862/CJIC.2015.156

Chinese J. Inorg. Chem., **2015**,**31**:1224-1230

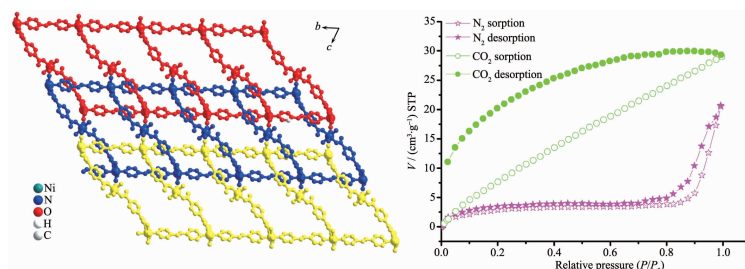


Two Unusual 2D→3D Entanglement Networks Self-Assembled from a T-shaped Tricarboxylate Ligand: Syntheses, Structures and Properties (English)

DUAN Yan-Lin, MA Ran-Ran, CAO Ting-Ting, LIU Ting, LI Cheng-Juan, WANG Su-Na

DOI:10.11862/CJIC.2015.132

Chinese J. Inorg. Chem., **2015**,**31**:1231-1238



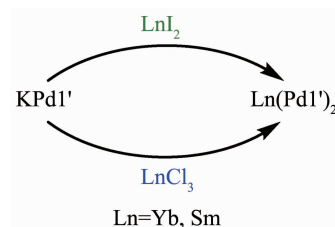
Two Ni-organic frameworks exhibit (3,4)-connected (6³)(6⁵.8) bilayer structures. Each bilayer polycatenates two other identical bilayers, giving rise to 2D → 3D polycatenating networks with polyrotaxane moieties. Gas adsorption measurements indicated compound 1 showed adsorption for CO₂ and N₂.

Homoleptic Divalent Lanthanide
“Open-Metalloenes”—
Bis(2,4-*t*-Bu₂-pentadienyl)Sm and Yb
Complexes (English)

CHEN Run-Hai, WANG Ping, LIU Qing,
DONG Yun-Hui, LI Yue-Yun

DOI:10.11862/CJIC.2015.169

Chinese J. Inorg. Chem., **2015**,**31**:1239-1244



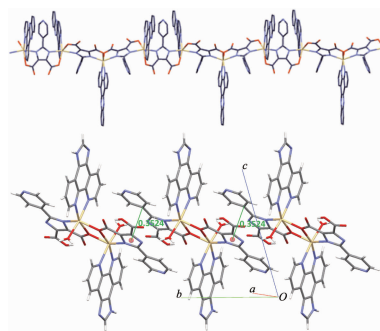
The bis(2,4-*t*-Bu₂-pentadienyl) lanthanide complexes (η^5 -Pdl')₂Yb(THF) (**1**) and (η^5 -Pdl')₂Sm(DME) (**2**) were successfully prepared and well characterized, both two compounds could initiate ring-opening polymerization of ϵ -caprolactone rapidly at room temperature and led to narrow polydispersities with high activity.

Cd(II) Complexes Based on
2-(Pyridin-4-yl)-1*H*-imidazole-4,5-
dicarboxylic Acid Ligand: Crystal
Structures and Luminescent Properties
(English)

QIAO Yu, MA Bo-Nan, LI Xiu-Ying,
ZHANG Xing-Jing, WEI Bing, HOU Jing,
CHE Guang-Bo

DOI:10.11862/CJIC.2015.168

Chinese J. Inorg. Chem., **2015**,**31**:1245-1251



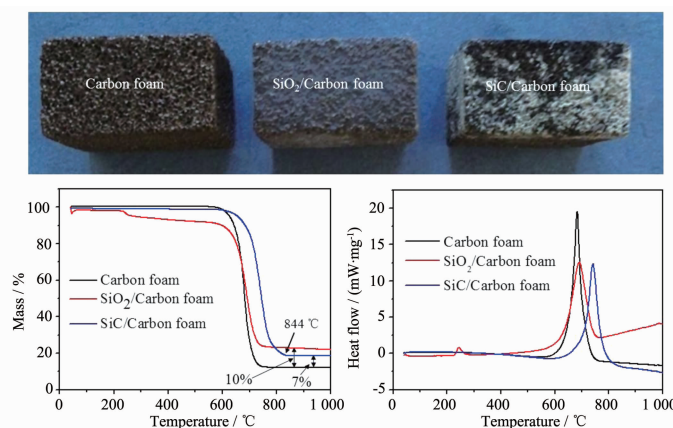
Complexes **1** and **2** exhibit one-dimensional chain and zero-dimensional structures, respectively. The π - π stacking interactions between the neighboring chains/units develop the chains/units into higher dimensional structures.

Preparation and Characterization of
SiO₂/Carbon Foam and SiC/Carbon
Foam Composites(English)

WU Xiao-Dong, SHAO Gao-Feng, CUI Sheng,
WANG Ling, SHEN Xiao-Dong

DOI:10.11862/CJIC.2015.161

Chinese J. Inorg. Chem., **2015**,**31**:1252-1260

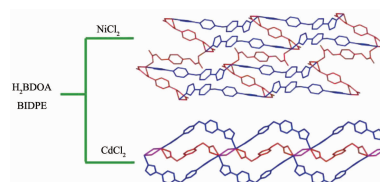


Syntheses and Crystal Structures of
Nickel(II) and Cadmium(II) Coordination
Polymers Constructed by Benzene-1,4-
dioxydiacetate and 4,4-Bis(imidazole-
1-yl)diphenyl Ether (English)

CHEN Hong, YU Min, LIU Guang-Xiang

DOI:10.11862/CJIC.2015.170

Chinese J. Inorg. Chem., **2015**,**31**:1261-1268



Two coordination polymers, [Ni(BDOA)(BIDPE)(H₂O)]_n (**1**) and [Cd(BDOA)_{0.5}(BIDPE)Cl]_n (**2**), (H₂BDOA=benzene-1,4-dioxydiacetic acid and BIDPE=4,4-bis(imidazole-1-yl)diphenyl ether), have been synthesized. Complex **1** exhibits a two-dimensional corrugated layer structure, whereas complex **2** possesses a one-dimensional chain structure which is generated by joining binuclear Cd₂ units by BIDPE and BDOA ligands.