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YUN Qiang, ZHOU Yuan, HAI Chun-Xi, SHEN Yue, LI Xiang, ZHANG Li-Juan, LI Song, DING Xiu-Ping

DOI:10.11862/CJIC.2015.128

Chinese J. Inorg. Chem., **2015**, *31*:880-887

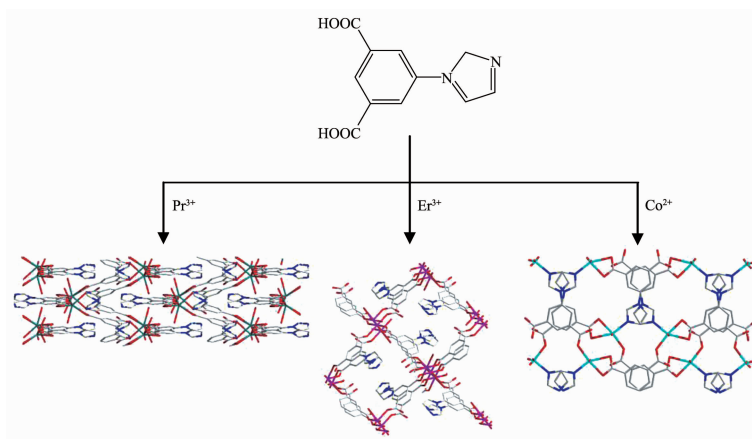
Articles

Syntheses, Structures and Properties of Metal-Organic Frameworks Based on Imidazolyl-Aromatic Multi-Carboxylate Acid Ligands (English)

QIAN Yan-Tao, PENG Ye-Dong, ZHANG Wen-Wei

DOI:10.11862/CJIC.2015.148

Chinese J. Inorg. Chem., **2015**, *31*:857-864

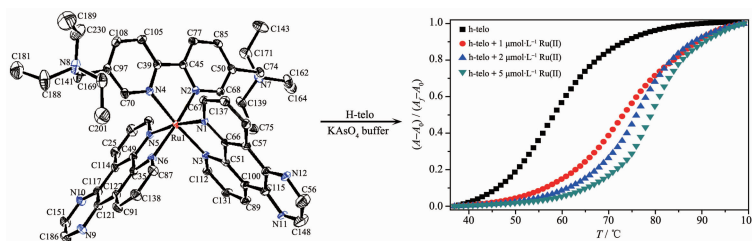


Synthesis, Crystal Structure and Interactions with G-Quadruplex Structures of $[\text{Ru}(\text{dpq})_2\text{L}]^{4+}$ (English)

SUN Jing, SONG Xing-Dong, CHEN Wen-Xiu, ZHAO Xuan-Hao, CHEN Jia-Xi, JIA Zhen-Bin, HAO Hong-Qing

DOI:10.11862/CJIC.2015.142

Chinese J. Inorg. Chem., **2015**, *31*:865-872



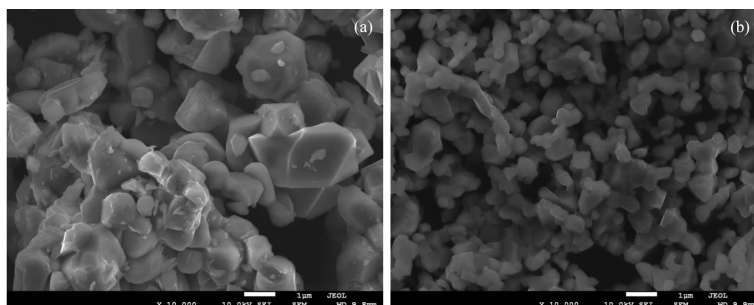
The Interactions of complex $[\text{Ru}(\text{dpq})_2\text{L}](\text{PF}_6)_4$ with different G-quadruplexes were investigated. FRET studies proved that the complex bonds more strongly to h-telo than to promoters, such as c-myc and bcl2.

Effect of Glucose on the Performance of $\text{Li}_{1.2}\text{Ni}_{0.13}\text{Co}_{0.13}\text{Mn}_{0.54}\text{O}_2$ Synthesized by Sol-Gel Method

WANG Li-Zhen, XU Yong, FANG Hua,
GAO Hai-Li

DOI:10.11862/CJIC.2015.140

Chinese J. Inorg. Chem., **2015**,**31**:873-879



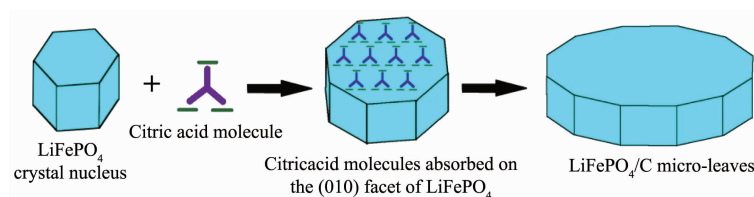
The cathode material $\text{Li}_{1.2}\text{Ni}_{0.13}\text{Co}_{0.13}\text{Mn}_{0.54}\text{O}_2$ was synthesized by sol-gel method with glucose. The particle sizes were reduced and the distribution became uniform. The irreversible capacity loss in initial cycle was reduced.

Hydrothermal Synthesis of Leaf-like LiFePO_4/C Cathode Composites (English)

YUN Qiang, ZHOU Yuan, HAI Chun-Xi,
SHEN Yue, LI Xiang, ZHANG Li-Juan,
LI Song, DING Xiu-Ping

DOI:10.11862/CJIC.2015.128

Chinese J. Inorg. Chem., **2015**,**31**:880-887

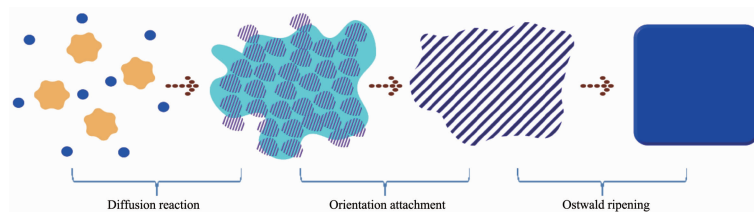


Formation Mechanisms of Monodisperse Strontium Titanate Nanocrystalline

ZHAN Hong-Quan, JIANG Xiang-Ping,
LI Xiao-Hong, ZHU Mian-Xia, LUO Zhi-Yun

DOI:10.11862/CJIC.2015.137

Chinese J. Inorg. Chem., **2015**,**31**:888-894



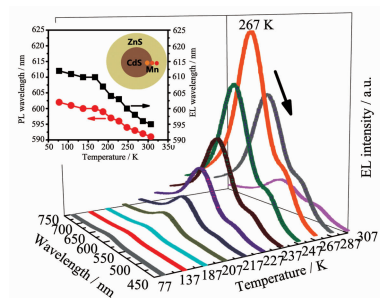
SrTiO_3 nanocrystallines have been grown from strontium nitrate and titanium butoxide by the hydrothermal method. The growth process of strontium titanate nanocrystallines follows the formation mechanism of “diffusion reaction—orientation attachment—Ostwald ripening”.

Electroluminescent Characteristics of Mn-Doped CdS/ZnS Core/Shell Nanocrystals

YU Yong-Ya, GAO Xiao-Qin, LIAO Chen,
CUI Yi-Ping, ZHANG Jia-Yu

DOI:10.11862/CJIC.2015.133

Chinese J. Inorg. Chem., **2015**,**31**:895-900



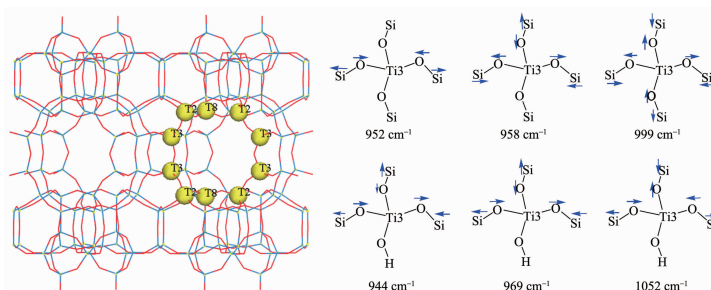
The photon energy of EL emission from $\text{CdS}:\text{Mn}/\text{ZnS}$ NCs is dependent on the location of Mn dopants, which is revealed for the first time. The competition between conductivity and nonradiative recombination could result in increase of EL intensity with the temperature, and then decrease.

Theoretical Calculation on the Structure and Vibrational Spectra of Framework Titanium Located in Sinusoidal Channel of Ti-MWW

LI Na, JIANG Yan-Jiao, QIAO Yi-Ming, ZHOU Dan-Hong

DOI:10.11862/CJIC.2015.124

Chinese J. Inorg. Chem., 2015,31:901-907



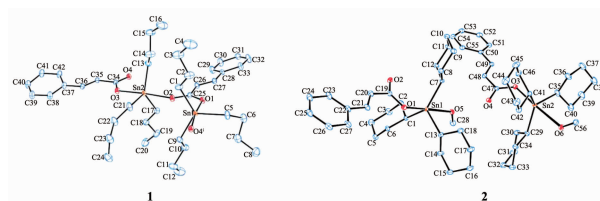
DFT calculation was performed on the structure and vibrational spectra of Ti(IV) species in the 10MR channel of Ti-MWW zeolite. $[\text{Ti}(\text{OSi})_4]$ at the T3 site shows 960 cm^{-1} vibrational band.

Syntheses, Crystal Structures, Anti-tumor Activity and Thermal Stability of Tri-alkyltin Cinnamic Carboxylates

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

DOI:10.11862/CJIC.2015.109

Chinese J. Inorg. Chem., 2015,31:908-914



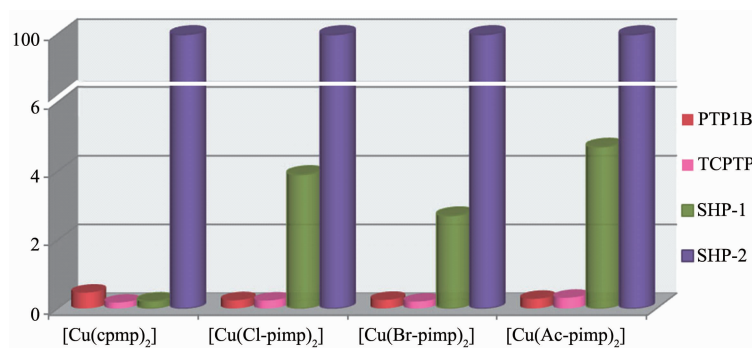
Crystal structures show the central tin atoms of two complexes are aberrant trigonal bipyramidal configurations, and a 1D infinite chain of **1** is bridged by carboxyl O atoms, while a 2D network of **2** is generated by O-H...O hydrogen bonds and π - π effects. Complex **1** displayed stronger *in vitro* anti-tumor activity against five human tumor cell lines (Colo205, HepG2, MCF-7, Hela and NCI-H460) than carboplatin, and had higher medicinal value than complex **2**.

Evaluation of Cu(II) Complexes with Schiff Base of Salicylanilide as the Inhibitors of Protein Tyrosine Phosphatases

YUAN Cai-Xia, LAN Shu-Fen, LU Li-Ping

DOI:10.11862/CJIC.2015.127

Chinese J. Inorg. Chem., 2015,31:915-922



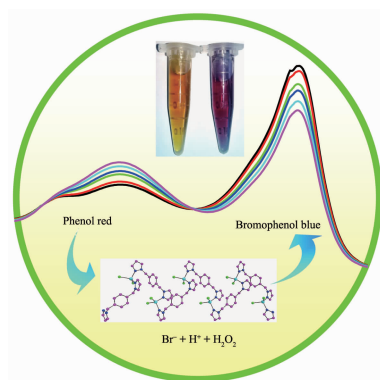
The inhibitory activities of three complexes $[\text{Cu}(\text{X-pimp})_2]$ against four PTPs were evaluated and compared with those of the reported complex $[\text{Cu}(\text{cpmp})_2]$. The results indicated that the change in the position of the substituents on the Schiff base ligand may influence the inhibitory selectivity of the complexes against PTPs.

Copper (II) and Cobalt (II) Complexes with Arene-Linked Pyrazolyl Methane: Syntheses, Structures and Mimicking Catalytic Activity in Brominating Reaction

WANG Ji-Xiao, WANG Che, GAO Xue,
WANG Zhi-Nan, ZHANG Xiao-Xi,
FENG Xiao-Dong, WEI Si-Yue,
XING Yong-Heng, SHI Zhan

DOI:10.11862/CJIC.2015.122

Chinese J. Inorg. Chem., **2015**,**31**:923-929



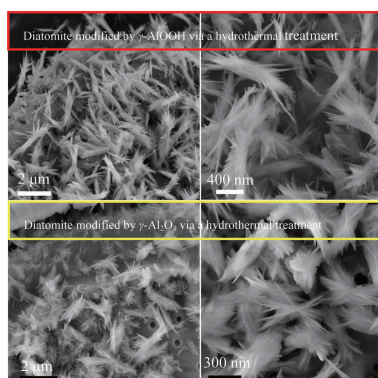
Two transition metal (copper and cobalt) complexes were constructed by 1,4-bis((1*H*-pyrazol-1-yl)methyl)benzene. Both of them have mimic catalytic activity during the brominating reaction process.

Fabrication and Highly Efficient Adsorption for Cs⁺ and Pb²⁺ of γ -AlOOH/Al₂O₃ Modified Diatomite

ZHENG Guang-Wei, DU Yu-Cheng,
HOU Rui-Qin, SUN Guang-Bing,
WANG Jin-Shu, WU Jun-Shu

DOI:10.11862/CJIC.2015.149

Chinese J. Inorg. Chem., **2015**,**31**:930-938



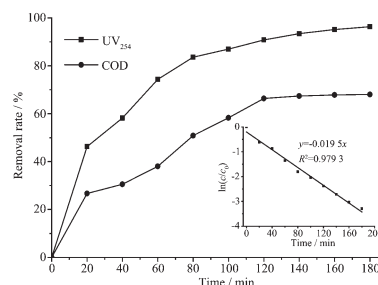
The samples of diatomite modified by ordered γ -AlOOH and γ -Al₂O₃ are prepared via a hydrothermal route. It is found that γ -AlOOH/diatomite and γ -Al₂O₃/diatomite show the maximal Pb²⁺ adsorption capacities of 357.1 and 416.7 mg·g⁻¹, respectively.

Ag₂O Doped Bi₂MoO₆: Preparation and Photocatalytic Activity for Fulvic Acid Degradation

ZHANG Yue, ZHAO Xue-Jiao,
DUAN Yuan-Shou, SU Xiu-Rong

DOI:10.11862/CJIC.2015.108

Chinese J. Inorg. Chem., **2015**,**31**:939-946



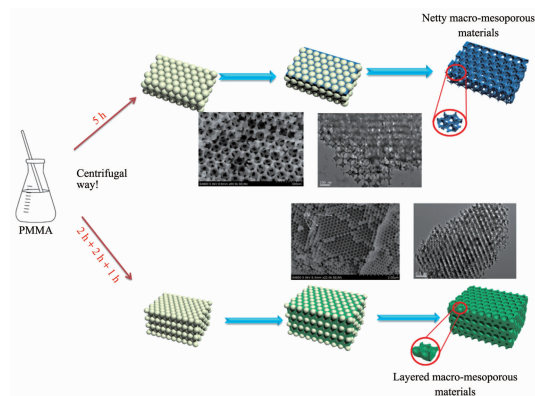
A photobacterium phosphoreum toxicity test results show that the toxicity of the 2 h photocatalytic degradation product is reduced by about 90% compared to the un-degraded fulvic acid.

Controllable Preparation and Characterization of Three-Dimensionally Ordered Macro-Mesoporous Silica Monolith

WANG You-He, KOU Long, SUN Hong-Man,
LI Yang, XING Wei, YAN Zi-Feng

DOI:10.11862/CJIC.2015.121

Chinese J. Inorg. Chem., **2015**,**31**:947-953

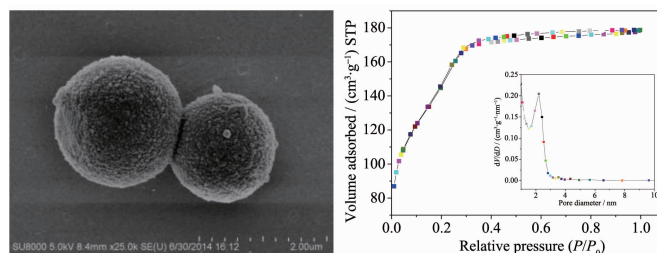


Modified Jeffamine Molecular Tools for Ordered Mesoporous and Super-Microporous Silica Microsphere Particles

LIU Chun-Yan, GONG Cai-Yun,
ZHOU Dong-Xue, WANG Jing, LIU Jia-Shuo,
LIU Zhao-Bin

DOI:10.11862/CJIC.2015.139

Chinese J. Inorg. Chem., **2015**,**31**:954-960



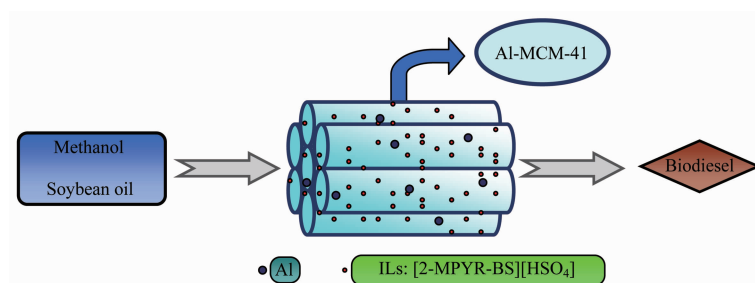
The ordered mesoporous and super-microporous silica microspheres were hydrothermally synthesized under acidic conditions at mild temperature by using a polyether amide polymeric surfactant as templating.

Al-MCM-41 Immobilized Ionic Liquids Catalysts Containing Double-Acid Active Sites for Biodiesel Production

NI Bang-Qing, HUANG Jiang-Lei,
ZHANG Ping-Bo, FAN Ming-Ming

DOI:10.11862/CJIC.2015.131

Chinese J. Inorg. Chem., **2015**,**31**:961-967



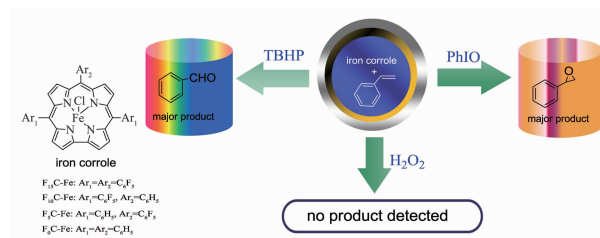
Al-MCM-41 immobilized ILs catalysts with double-acid active sites efficiently catalyze the transesterification for biodiesel production. The beneficial acid environment was created for the active component ILs by introducing Al to MCM-41.

Catalytic Styrene Oxidation by Iron Corroles Bearing Different Substituents

YANG Hong, ZOU Huai-Bo,
WANG Hua-Hua, YANG Shu-Bao,
ZHANG Hao, LIU Hai-Yang

DOI:10.11862/CJIC.2015.141

Chinese J. Inorg. Chem., **2015**,**31**:968-974

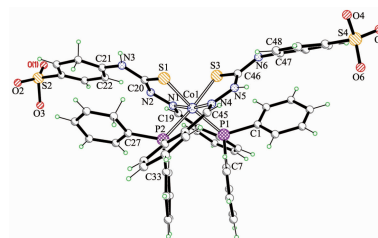


Photocatalytic Hydrogen Production from Water Using Cobalt-Thiosemicarbazone Complex as Redox Catalyst (English)

JING Xu, YANG Lin-Lin, CHANG Zhi-Duo,
HE Cheng, DUAN Chun-Ying

DOI:10.11862/CJIC.2015.090

Chinese J. Inorg. Chem., **2015**,**31**:975-980



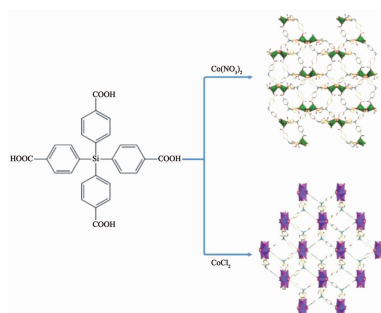
The title cobalt complex can be used as the proton reduction catalyst for light driven H₂ evolution with fluorescein as the photosensitizer.

Structural Diversity of Coordination Polymers Built from a Rigid Silicon-Based Tetracarboxylate Linker (English)

XUE Yun-Shan, XU Yan, DU Hong-Bin

DOI:10.11862/CJIC.2015.125

Chinese J. Inorg. Chem., 2015,31:981-988



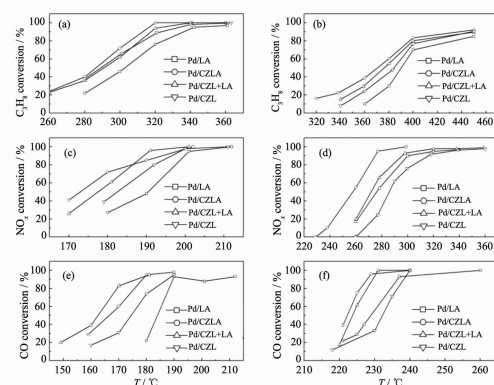
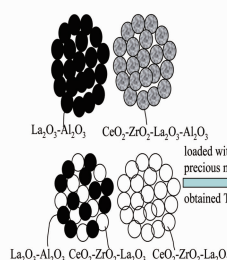
Two coordination polymers built on a rigid tetrapodal ligand were solvothermally synthesized and structurally characterized.

Effect of Support Materials on Property and Catalytic Performance of Pd-Only Three-Way Catalyst (English)

CUI Ya-Juan, FANG Rui-Mei,
SHANG Hong-Yan, SHI Zhong-Hua,
GONG Mao-Chu, CHEN Yao-Qiang

DOI:10.11862/CJIC.2015.120

Chinese J. Inorg. Chem., 2015,31:989-1002

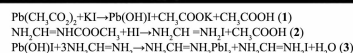
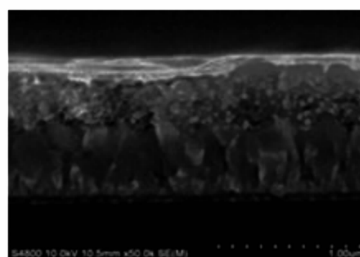


Solution Processed Hybrid Formamidine Lead Iodine Solar Cells Based on Pb(OH)I Precursor (English)

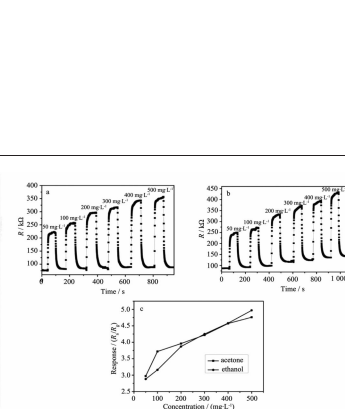
ZHU Hui-Min, WANG Dong, YU Yong,
DUAN Yong-Xin, PANG Shu-Ping,
CUI Guang-Lei

DOI:10.11862/CJIC.2015.126

Chinese J. Inorg. Chem., 2015,31:1003-1009



The pure phase FAPbI3 can be obtained by using Pb(OH)I as the precursor at 160 °C, and a PCE of 5.8% is achieved under the simulated AM 1.5G one sun illumination.

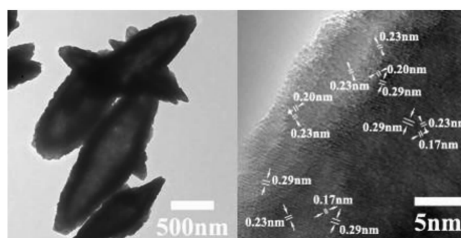


Hollow Spindle-Shaped CuO/Cu2(OH)2CO3 Nanocomposites: Synthesis and Gas Sensing Property (English)

QI Xiao-Jiao, WANG Qian, GAO Hai-Yan,
ZHAO Yong-Nan, LI Guo-Dong

DOI:10.11862/CJIC.2015.129

Chinese J. Inorg. Chem., 2015,31:1010-1018



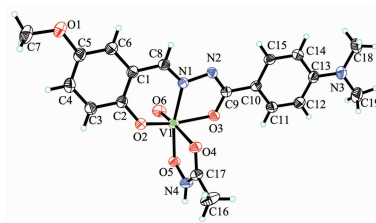
Hollow spindle-shaped CuO/Cu₂(OH)₂CO₃ composite particles solvothermally fabricated with highly dispersive mixtures of nanoscale CuO and Cu₂(OH)₂CO₃ shell show an improved gas sensing property.

N'-(2-Hydroxy-5-methoxybenzylidene)-4-dimethylaminobenzohydrazide and Its Oxovanadium(V) Complex: Syntheses, Crystal Structures, and Urease Inhibitory Activity (English)

YE Yu-Ting, NIU Fang, SUN Ying,
QU Dan, ZHAO Xin-Lu, WANG Jia,
XIAN Dong-Mei, HAUSER Jürg,
YOU Zhong-Lu

DOI:10.11862/CJIC.2015.135

Chinese J. Inorg. Chem., **2015**,**31**:1019-1026



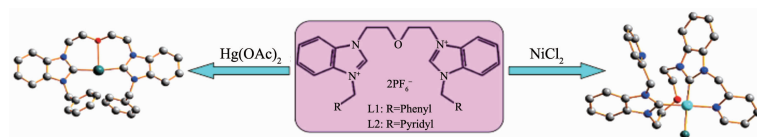
N'-(2-Hydroxy-5-methoxybenzylidene)-4-dimethylaminobenzohydrazide (H_2L) and its acetylhydroxamate-coordinated oxovanadium (V) complex were prepared and characterized. The complex show effective urease inhibitory activity.

Syntheses and Structures of Two 3D Metal NHCs Based on Flexible Functionalized Bibenzimidazole (English)

ZHANG Shu-Fang, XIONG Fang,
LIU Yu-Fen, HE Zhan, JING Lin-Hai,
QIN Da-Bin

DOI:10.11862/CJIC.2015.147

Chinese J. Inorg. Chem., **2015**,**31**:1027-1033



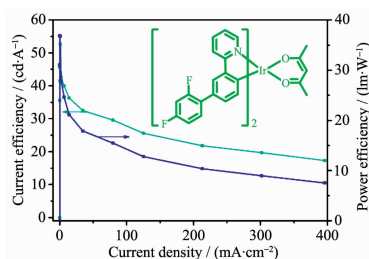
Two dibenzimidazolium $Hg(III)$ -NHC and $Ni(II)$ -NHC complexes were prepared. Owing to the large system of hydrogen bonds and $\pi \cdots \pi$ stacking interactions, the complexes showed two interesting 3D supermolecular structures.

A Fluorine-Containing Phosphorescent Iridium(III) Complex for High-Efficiency Green Organic Light-Emitting Device (English)

MA Ting-Chun, LIU Shu-Juan, TAO Peng,
XU Hang, ZHAO Qiang, XU Wen-Juan,
ZHANG Ping-Lin, WANG Yi-Fan,
LUO Chang-Cheng, LIEN Shui-Chih Alan,
HUANG Wei

DOI:10.11862/CJIC.2015.123

Chinese J. Inorg. Chem., **2015**,**31**:1034-1040



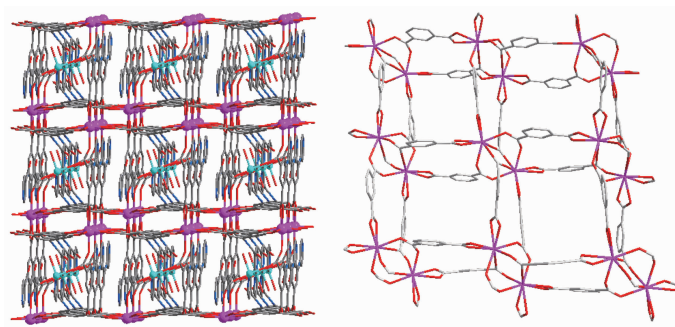
A phosphorescent $Ir(III)$ complex containing fluorine atoms in the C^N ligands exhibits a maximum luminance of 68 324 $cd \cdot m^{-2}$ at 7.2 V, the luminous efficiency of 53 $cd \cdot A^{-1}$ and power efficiency of 37 $lm \cdot W^{-1}$.

Syntheses, Crystal Structures and Properties of 3D Heteronuclear Mn(II)-Sm(III) and 2D Homonuclear Sm(III) Complexes (English)

CHEN Man-Sheng, DENG Yi-Fang, CUI Ying, LIU Dong-Cheng, LIANG Fu-Pei

DOI:10.11862/CJIC.2015.130

Chinese J. Inorg. Chem., **2015**,**31**:1041-1048



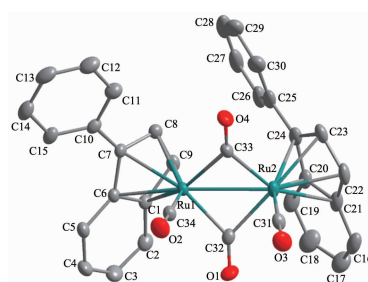
Two Mn(II)-Sm(III) and Sm(III) complexes have been synthesized by hydrothermal method in one pot. Their molecules are connected to form a 2D Sm-carboxylate layer net bridged by INAIP²⁻ ligands, while the Mn-O and Mn-N interaction linked complex **1** into 3D framework.

Ruthenium Carbonyl Complexes Involving Aryl-Substituted Indenyl Ligands: Syntheses and Structures (English)

MA Zhi-Hong, LIU Ying-Chun, LI Su-Zhen, HAN Zhan-Gang, ZHENG Xue-Zhong, LIN Jin

DOI:10.11862/CJIC.2015.140

Chinese J. Inorg. Chem., **2015**,**31**:1049-1054



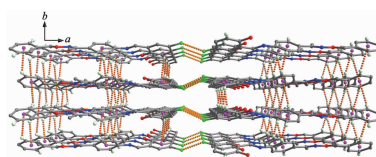
Thermal treatment of the aryl-substituted indenyl ligands C₉H₇R (R=Ph (**1**), 4-tolyl (**2**), 4-chlorophenyl (**3**), 4-methoxyphenyl (**4**), 2-thienyl (**5**)) with Ru₃(CO)₁₂ gave the corresponding dinuclear metal carbonyl complexes.

A Schiff Base Ligand Containing Oxime Group and its Cu(II) Complex: Syntheses and Supramolecular Structures (English)

SUN Yin-Xia, LU Rui-E, LI Xin-Ran, ZHAO Ya-Yuan, LI Chun-Yu

DOI:10.11862/CJIC.2015.134

Chinese J. Inorg. Chem., **2015**,**31**:1055-1062



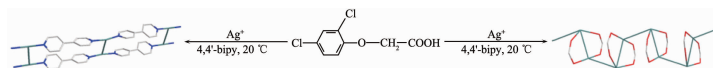
A schiff base chelating ligand shows a 3D supramolecular networks structure linked by the intermolecular Cl...Cl halogen bonding and C-H...π interactions. Its Cu(II) complex has a 2D-layer supramolecular structure by intermolecular C-H...π and π...π stacking interactions.

Syntheses and Crystal Structures of Two Ag(I) Complexes with 2,4-Dichlorophenoxyacetic Acid and Nitrogen Heterocyclic Ligands (English)

HAO Xiao-Min, GU Chang-Sheng, JI Li-Li, LI Shi-Jie, LI Yong, SONG Wen-Dong

DOI:10.11862/CJIC.2015.143

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The complexes of {[Ag₂(ELBA)(4,4'-bipy)₂(NO₃)₂·2H₂O]_n} (**1**) and [Ag₂(ELBA)₂(2,2'-bipy)]_n (**2**) were synthesized and characterized. Ag...Ag interactions, hydrogen bonding and π-π interactions were observed in these complexes.