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低氧掺杂纳米石墨片的制备及其电化学性能

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LI Jin-Ping, FAN Jian-Zhong, WANG Duo-Zhi

DOI:10.11862/CJIC.2016.093

Chinese J. Inorg. Chem., **2016**,**32**:753-761

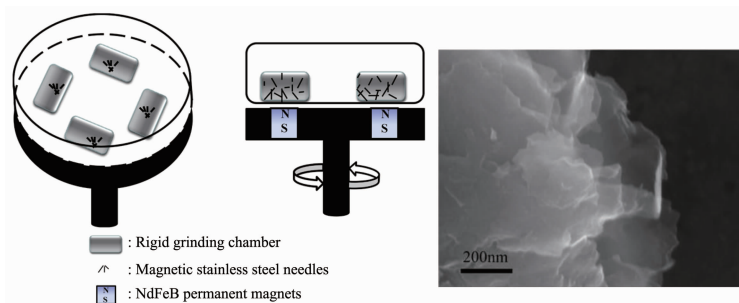
Articles

Low Oxygen-Doped Graphite Nanosheet: Preparation and Electrochemical Performance

JI Hai-Bin, SONG Sha-Sha, YANG Yu-Yan, LIU Yang, ZHAO Zeng-Dian

DOI:10.11862/CJIC.2016.107

Chinese J. Inorg. Chem., **2016**,**32**:745-752



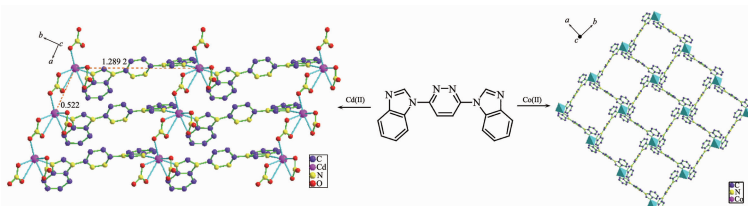
A magnetic-grinding method was used to produce graphite nanosheet efficiently, which can be applied to supercapacitor.

Metal-Organic Complexes Based on 3,6-Bis(*N*-imidazolyl/benzimidazolyl) Pyridazine: Syntheses, Structures, Emission and Photocatalytic Properties (English)

LI Jin-Ping, FAN Jian-Zhong, WANG Duo-Zhi

DOI:10.11862/CJIC.2016.093

Chinese J. Inorg. Chem., **2016**,**32**:753-761



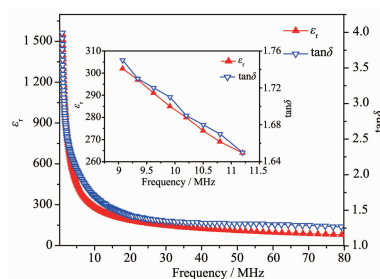
Four complexes were synthesized based on 3,6-bis(*N*-imidazolyl/benzimidazolyl) pyridazine. **1** has a mononuclear structure, and **2** features a 1D chain. **3** and **4** feature 2D network structures and can exhibit blue fluorescent. Moreover, **3** is efficient catalysts for MB degradation under UV light.

Theoretical Calculations and Solid-Phase Synthesis of the Single Phase Multiferroic $\text{CaMn}_7\text{O}_{12}$

ZHANG Rui-Hao, DAI Jian-Qing, NIU Zhi-Hui, LI Ya, CHENG Zhen-Yu, WANG Zhi-Xiang

DOI:10.11862/CJIC.2016.103

Chinese J. Inorg. Chem., **2016**,**32**:762-768



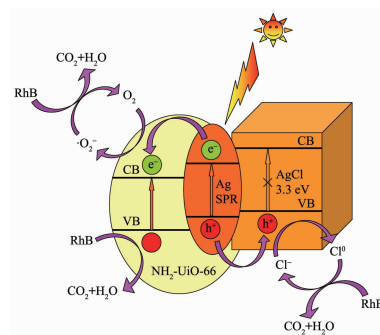
The $R\bar{3}$ crystal structure and the proper-screw magnetic order of $\text{CaMn}_7\text{O}_{12}$ was calculated by using the first principles calculation based on the density function theory, and its magnetic and electric properties were characterized.

Visible-Light Responsive Photocatalyst $\text{Ag}/\text{AgCl}@ \text{NH}_2\text{-UiO-66}$: Preparation and Photocatalytic Performance

ZHOU Xin, FENG Tao, GAO Shu-Tao, YANG Liang-Liang, WANG Zi-Chen, WANG Na, LIU Cong-Ying, FENG Cheng, SHANG Ning-Zhao, WANG Chun

DOI:10.11862/CJIC.2016.095

Chinese J. Inorg. Chem., **2016**,**32**:769-776



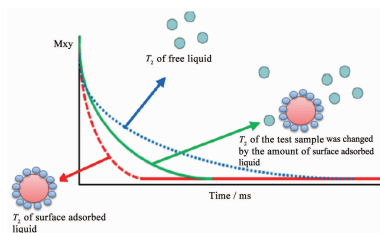
Visible-light responsive photocatalyst, $\text{Ag}/\text{AgCl}@ \text{NH}_2\text{-UiO-66}$, was synthesized via vapor diffusion-photoreduction strategy. Due to the synergistic effect between Ag/AgCl and $\text{NH}_2\text{-UiO-66}$, the as-prepared catalyst exhibits excellent degradation efficiency for RhB under visible light illumination ($\lambda \geq 420 \text{ nm}$).

Compatibility Characterization of Silica with Liquid Medium

DU Cui-Ming, XING Yan-Xia, CHAI Song-Gang, HAO Liang-Peng, CHEN Wen-Xin

DOI:10.11862/CJIC.2016.084

Chinese J. Inorg. Chem., **2016**,**32**:777-781



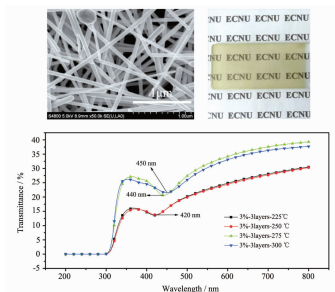
The compatibility of high silica content slurry were studied by using dynamic nuclear magnetic resonance (NMR) technique, and the quantitative model for the characterization of the adsorption layer thickness and affinity was established.

Preparation of Transparent and Conductive Silver Nanowires Films by Screen Printing Method

ZHU Qing, ZHANG Zhe-Juan, SUN Zhuo, CAI Bin, CAI Wen-Jun

DOI:10.11862/CJIC.2016.111

Chinese J. Inorg. Chem., **2016**,**32**:782-788



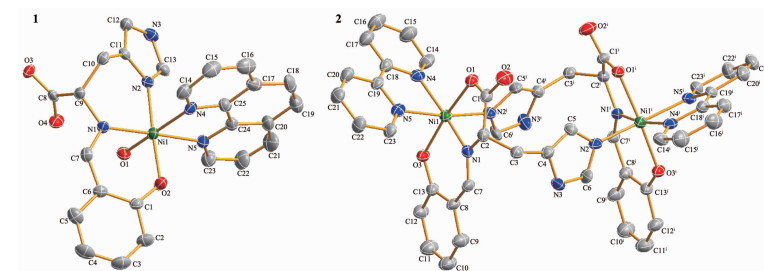
Transparent conductive films (TCFs) based on silver nanowires are achieved by using screen printing. The surface square resistance of AgNWs-TCFs can be as low as $25.6 \Omega \cdot \square^{-1}$, when the mass percentage of AgNWs is only 3%. After annealed at temperature as low as 275°C , the transmittance of AgNWs-TCFs can be 39.4%.

Syntheses, Crystal Structures, DNA Interactions and SOD Activities of Two Nickel (II) Complexes with *L*-Histidine Schiff Base

WEI Qiang, DONG Jian-Fang, LI Wen-Bin, ZHAO Pei-Ran, DING Fei-Fei, LI Lian-Zhi

DOI:10.11862/CJIC.2016.117

Chinese J. Inorg. Chem., **2016**,**32**:789-798

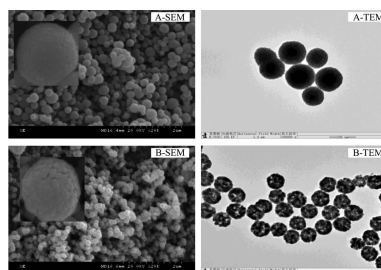


Influence of pH Adjustment Modes on LAB Assisted-Synthesis of Cu₂O Nanospheres and Self-assembly Mechanism

YIN Guang-Ming, ZHANG Zhuan-Fang,
SONG Kun, XIN Jian-Jiao, SUN Li

DOI:10.11862/CJIC.2016.102

Chinese J. Inorg. Chem., **2016**,**32**:799-805



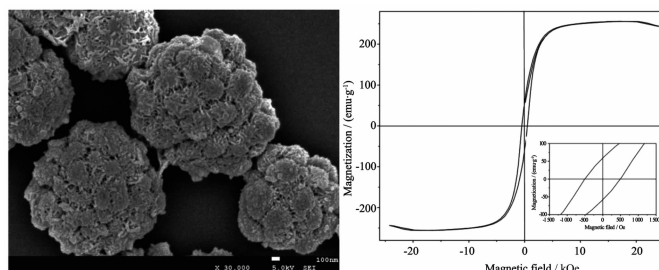
With the ampholytic surfactant *N*-(3-Cocoamidopropyl)-*N*, *N*-dimethyl-*N*-carboxymethyl ammonium betaine (LAB) as the template, Cu₂O nanospheres were prepared in two different ways of adjusting the pH. Cu₂O nanospheres are composed of acicular nanoparticles or nano-structure globules. There are different reaction and the self-assembly mechanism of Cu₂O nanospheres obtained by different ways of adjusting pH.

Synthesis and Magnetic Property of Ultrafine Cobalt Powder

XIAO Huan-Huan, FU Zhi-Qiang,
CHEN Guang-Yan, LONG Qin, DENG Yi,
XIE Ke-Nan

DOI:10.11862/CJIC.2016.105

Chinese J. Inorg. Chem., **2016**,**32**:806-810

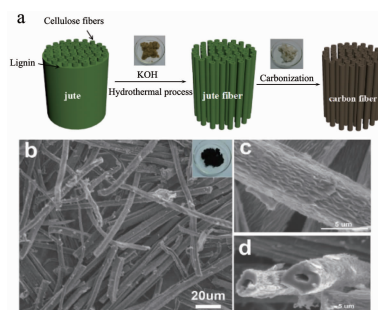


Preparation and Electrochemical Performance of Carbon Fiber/MnO/C Composites as Anodes for Lithium Batteries

ZHOU Bu-Yu, ZHANG Chun-Yan,
WU Chang-Hao, LIU Han, YU Jing,
YANG Chun, SHEN Yu-Hua

DOI:10.11862/CJIC.2016.112

Chinese J. Inorg. Chem., **2016**,**32**:811-817



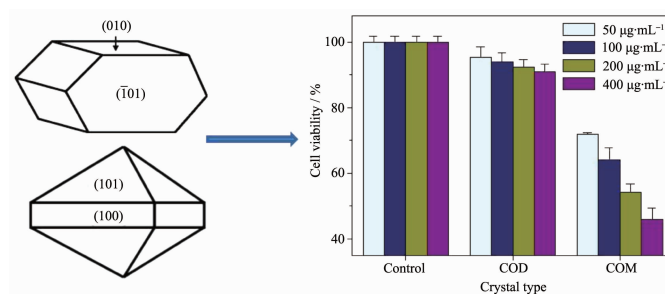
Hollow carbon fibers obtained from natural jute and carbon fiber/MnO/C nanocomposites were prepared by a simple method, and they exhibited good electrochemical performance as anodes for LIBs.

Toxicity Difference of Calcium Oxalate of Different Crystal Phases on Renal Epithelial Cells

SUN Xin-Yuan, YAO Xiu-Qiong, YU Kai,
OUYANG Jian-Ming

DOI:10.11862/CJIC.2016.097

Chinese J. Inorg. Chem., **2016**,**32**:818-826

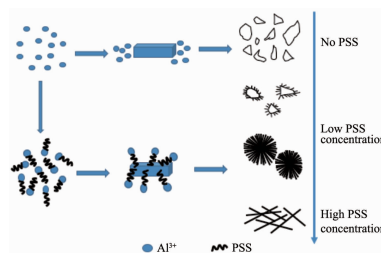


PSS-Assisted Hydrothermal Synthesis of Hierarchical γ-Al₂O₃ Nanostructures with Enhanced Adsorption Performance Towards CO₂

WANG Wen-Xuan, CAI Wei-Quan, LUO Lei

DOI:10.11862/CJIC.2016.106

Chinese J. Inorg. Chem., **2016**,**32**:827-832



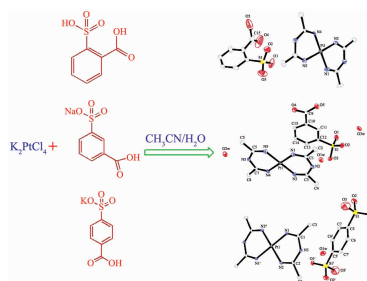
Series of hierarchical γ-Al₂O₃ nanostructures with enhanced adsorption performance towards CO₂ were successfully synthesized via a facile PSS-assisted hydrothermal method-calcination route from AlCl₃·6H₂O. Especially, when concentration of the PSS is 6 g·L⁻¹, the corresponding interwoven fibrous γ-Al₂O₃ micron particles show stable adsorption capacity after consecutive recycle times of 6.

Syntheses, Crystal Structures and Properties of *N*-(1-iminoethyl)acetamidine Platinum Complexes

LIU Jing, ZHU Long-Guan

DOI:10.11862/CJIC.2016.110

Chinese J. Inorg. Chem., **2016**,**32**:833-838



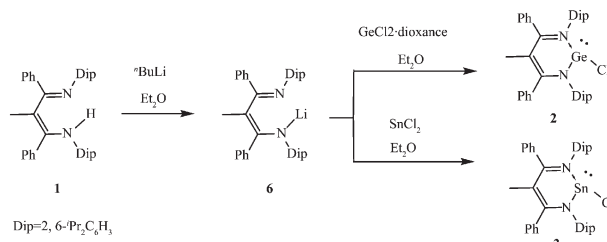
Three diverse platinum complexes with *N*-(1-iminoethyl)acetamidine ligand which was in situ synthesized showed different thermal stability and fluorescence property probably caused by the different hydrogen-bonding patterns. Moreover, the 1,4-disulfonatebenzene converted from 4-sulfobenzoate was also observed.

Syntheses of Chlorogermylene and Chlorostannylene Supported by a β -Diketiminato Ligand Without Active Proton at α -Position

JIN Li-Jie, WANG Xin-Miao, KE Hong-Shan, MENG Yin-Feng, LU Xiao-Hua, CHEN San-Ping, WANG Wen-Yuan

DOI:10.11862/CJIC.2016.096

Chinese J. Inorg. Chem., **2016**,**32**:839-845



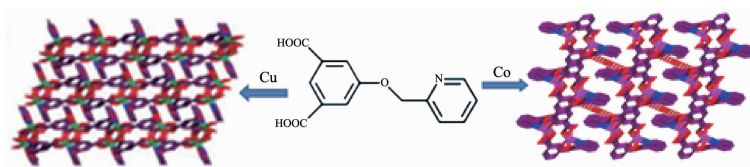
The reaction of the lithiation product of β -diketimine **1** with GeCl_2 -dioxane and SnCl_2 afforded the β -diketiminato chlorogermylene **2** and chlorostannylene **3**, respectively. The structural features of **2** and **3** indicate the anti-aromatic 6-membered rings in the molecules and direct overlap between atomic orbitals of Ge or Sn with adjacent atoms.

Two Transition Metal Coordination Complexes Based on a Flexible Pyridinecarboxylate Ligand: Syntheses, Structures, and Properties (English)

ZHANG Ya-Nan, YIN Hai-Ju, DANG Bei-Jun

DOI:10.11862/CJIC.2016.119

Chinese J. Inorg. Chem., **2016**,**32**:846-852



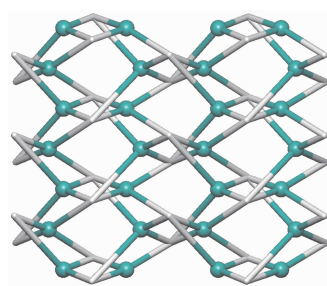
As a multifunctional organic ligand, 5-(pyridin-2-ylmethoxy)-isophthalic acid reacted with different transition metal ions (Cu(II) , Co(II)) to give two coordination polymers. Structural analysis indicated that **1** features a 2D layered structure, which possesses a 2-nodal (3,4)-connected topology; **2** has a 1D structure and further are connected to 3D supramolecular structure via hydrogen bonds.

Synthesis, Crystal Structure and Magnetic Property of a Coordination Polymer $[\text{Fe}(\text{HL})(\text{H}_2\text{O})]_n$ (English)

ZHAO Su-Qin, GU Jin-Zhong

DOI:10.11862/CJIC.2016.114

Chinese J. Inorg. Chem., **2016**,**32**:853-858



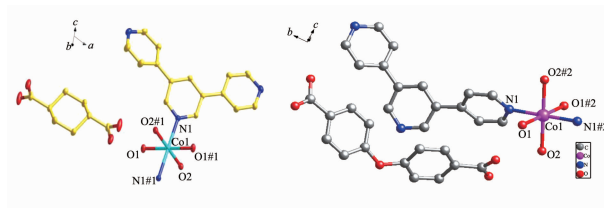
A 2D coordination polymer $[\text{Fe}(\text{HL})(\text{H}_2\text{O})]_n$ has been constructed and the structure and magnetic properties of the compound were investigated.

Syntheses and Crystal Structures of Two Cobalt(II) Compounds Based on 3,5-Bis(4-pyridyl)-pyridine (English)

ZHANH Chun-Li, WANG Hong-Yan, ZHENG He-Gen

DOI:10.11862/CJIC.2016.113

Chinese J. Inorg. Chem., **2016**,**32**:859-863



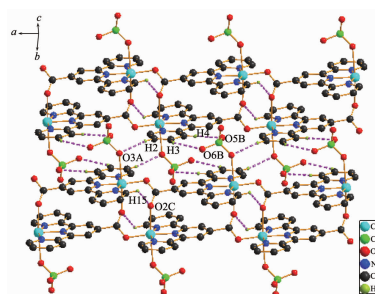
Two Cobalt(II) compounds have been synthesized and characterized by elemental analyses and the crystal structures were determined by single-crystal X-ray diffraction.

Syntheses, Crystal Structures and Properties of Two Cu(II) Complexes Based on 4'-Carboxy-2,2':6',2''-terpyridine (English)

FAN Yan, WANG Chen-Min, QU Zhi-Rong

DOI:10.11862/CJIC.2016.108

Chinese J. Inorg. Chem., **2016**,**32**:864-870



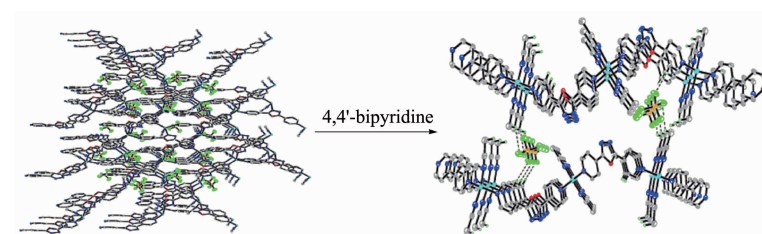
Two Cu (II) coordination compounds, $[\text{Cu}_2(\text{L})_2(\text{tp})] \cdot 2\text{H}_2\text{O}$ (**1**) and $[\text{Cu}(\text{L})(\text{ClO}_4)]_n$ (**2**) ($\text{L}=4'$ -carboxy-2,2':6',2''-terpyridine, H_2tp =terephthalic acid), were synthesized under hydrothermal conditions. Complex **2** displays 1D chain structure composed of ligands and metal ions, and a 2D layer structure of complex **2** is assembled by hydrogen bonds between chains.

Syntheses, Structural Characterization and Fluorescent Properties of 3D Copper(I) Coordination Polymers with Extended $\pi \cdots \pi$ Interactions (English)

HUANG Ting-Hong, ZHU Sheng-Lan, YANG Hu, ZHAO Bin, YANG Yan

DOI:10.11862/CJIC.2016.115

Chinese J. Inorg. Chem., **2016**,**32**:871-878

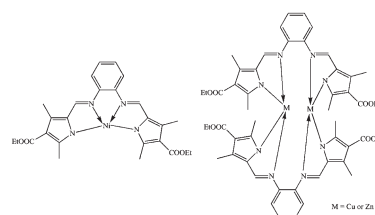


Ni(II)/Cu(II)/Zn(II) Complexes Based on a Bis(pyrrol-2-yl-methyleneamine) Ligand: Syntheses, Characterization, Fluorescence Properties and Crystal Structures of Ni(II)/Cu(II) Complexes (English)

MAO Pan-Dong, YAN Ling-Ling, WU Wei-Na, SONG Yi-He, YAO Bi-Xin

DOI:10.11862/CJIC.2016.098

Chinese J. Inorg. Chem., **2016**,**32**:879-883



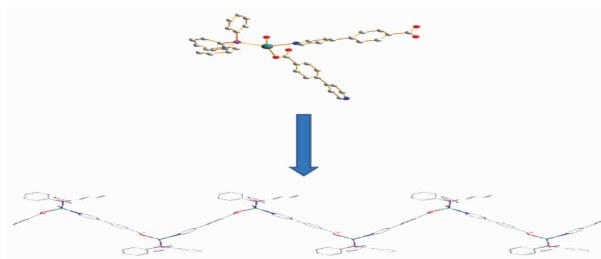
Mono- and bi-nuclear complexes NiL (**1**), Cu_2L_2 (**2**) and Zn_2L_2 (**3**) have been synthesized and characterized. The presence of the metal ions in the complexes could quench the fluorescence emission of the ligand.

Syntheses, Crystal Structures and Fluorescence Properties of Two Silver(I) Complexes Derived from Pyridylbenzoate Ligands (English)

MA Yan, BI Kai-Lun, CUI Yang-Zhe, LIU Min, LI Zhong-Feng, JIN Qiong-Hua

DOI:10.11862/CJIC.2016.100

Chinese J. Inorg. Chem., **2016**,**32**:884-890

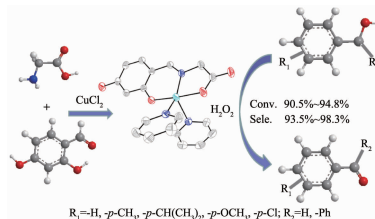


Two 2,4-Dihydroxybenzaldehydeglycine Schiff Base Complexes: Syntheses, Structures and Selective Oxidation Catalytic Properties for Alcohols (English)

LI Cheng-Juan, YAN Cai-Xin, YANG Xin-Xin, REN Yong-He, XUE Ze-Chun, CUI Chuan-Sheng, HUANG Xian-Qiang

DOI:10.11862/CJIC.2016.101

Chinese J. Inorg. Chem., **2016**,**32**:891-898



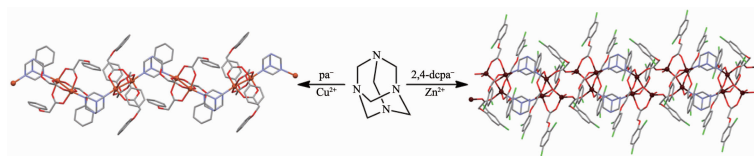
Two 2,4-dihydroxybenzaldehydeglycine Schiff base complexes have been synthesized, and complex **1** exhibit extraordinary catalytic performance in the oxidation of alcohols.

Syntheses, Crystal Structures of Two 1D Coordination Polymers Based on Hexamethylenetetramine and Flexible Aromatic Acids (English)

YUAN Hou-Qun, XIAO Wei, LI Yan-Xia,
HU Chun-Yan, BAO Guang-Ming

DOI:10.11862/CJIC.2016.109

Chinese J. Inorg. Chem., **2016**,**32**:899-905

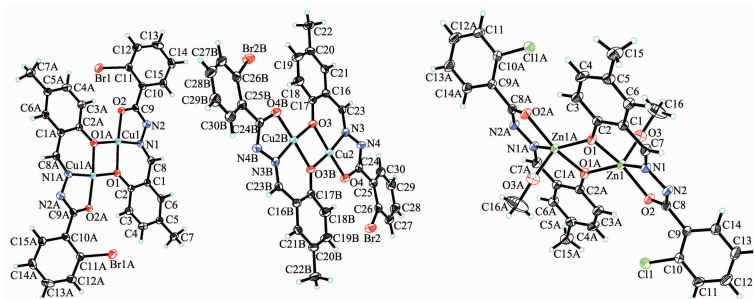


Syntheses, Crystal Structures and Antimicrobial Activity of Copper(II) and Zinc(II) Complexes with Arylhydrazones (English)

HAI Shi-Kun, LOU Shu-Fang, QIU Xiao-Yang

DOI:10.11862/CJIC.2016.099

Chinese J. Inorg. Chem., **2016**,**32**:906-912



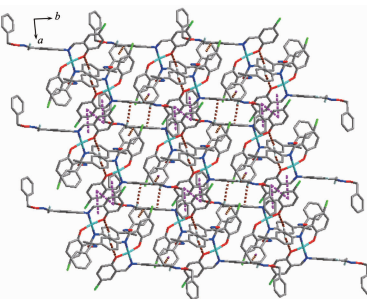
A pair of structurally similar dinuclear copper (II) and zinc (II) complexes with aroylhydrazone ligands were synthesized. The copper complex has effective antimicrobial activity.

Supramolecular Cobalt(II) and Copper(II) Complexes with Schiff Base Ligand: Syntheses, Characterizations and Crystal Structures (English)

SUN Yin-Xia, ZHAO Ya-Yuan, LI Chun-Yu,
YU Bin, GUO Jian-Qiang, LI Jing

DOI:10.11862/CJIC.2016.118

Chinese J. Inorg. Chem., **2016**,**32**:913-920



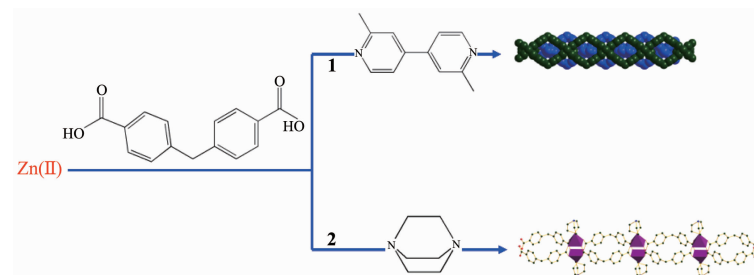
Two Schiff base mononuclear Co(II) and Cu (II) complexes all form a 2D-layer supramolecular structure by different intermolecular interaction, and substituted groups on the ligands could play a small impact on the fluorescence properties of the complexes.

Auxiliary Ligands Controlled Assembly of Two Zinc Coordination Polymers: Structures, Stability and Luminescence (English)

GUO Pei-Ying, LÜ Li-Xia, MA De-Yun,
GUO Hai-Fu

DOI:10.11862/CJIC.2016.104

Chinese J. Inorg. Chem., **2016**,**32**:921-927



By changing the auxiliary ligands, two zinc-based CPs have been prepared based on the reaction of 4,4'-methylenedibenzoic acid and $\text{Zn}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$ under the same reaction conditions. Moreover, the stability and luminescence properties have also been investigated.