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Preparation, Photophysical and Photocatalytic Property Characterization of $\text{Sm}_2\text{FeSbO}_7$ during Visible Light Irradiation (English)

LUAN Jing-Fei, TAN Wen-Cheng

DOI:10.11862/CJIC.2018.245

Chinese J. Inorg. Chem., **2018**,**34**(11):1950-1965

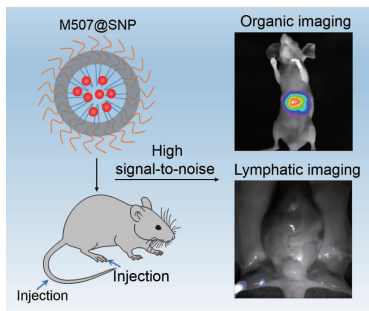
Articles

Silica-Copolymer Hybrid Nanocomposite for Animal Bioimaging

ZHANG Ze-Fang, YUAN Wei, XU Ming, YI Tao, ZHANG Shan-Duan, LI Fu-You

DOI:10.11862/CJIC.2018.250

Chinese J. Inorg. Chem., **2018**,**34**(11):1943-1949



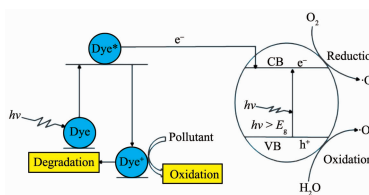
Benefiting from convenient synthetic method and fairly stable luminescence property, significant results with high signal-to-noise are obtained in organic and lymphatic imaging experiments.

Preparation, Photophysical and Photocatalytic Property Characterization of $\text{Sm}_2\text{FeSbO}_7$ during Visible Light Irradiation (English)

LUAN Jing-Fei, TAN Wen-Cheng

DOI:10.11862/CJIC.2018.245

Chinese J. Inorg. Chem., **2018**,**34**(11):1950-1965



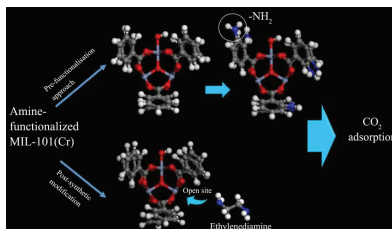
Photocatalytic degradation of indigo carmine by novel photocatalyst $\text{Sm}_2\text{FeSbO}_7$ under visible light irradiation shows high photocatalytic activity; A possible mechanisms and photocatalytic degradation path of indigo carmine was acquired.

Molecular Simulation for CO₂ Adsorption in Amine-Functionalized MIL-101(Cr)

WANG Zhi-Jing, WANG Jun-Chao,
ZHAO Xing-Le, MA Zheng-Fei

DOI:10.11862/CJIC.2018.258

Chinese J. Inorg. Chem., **2018**,**34**(11):1966-1974

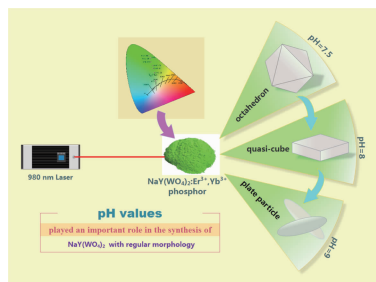


Preparation and Upconversion Luminescence Properties of Er³⁺/Yb³⁺ Co-doped NaY(WO₄)₂ Phosphors

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GUAN Xin, SHI Jun, JIANG Hao

DOI:10.11862/CJIC.2018.229

Chinese J. Inorg. Chem., **2018**,**34**(11):1975-1982

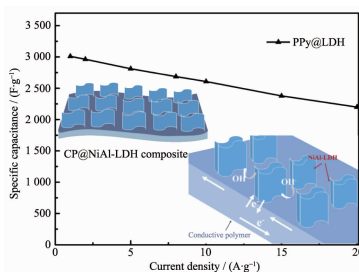


Synthesis and Supercapacitor Performance of Conductive Polymer@Nickel and Aluminum Double Metal Hydroxide Composites

PU Ying-Hui, DU Dong-Feng, YU Shi-Fan,
XING Wei

DOI:10.11862/CJIC.2018.224

Chinese J. Inorg. Chem., **2018**,**34**(11):1983-1990



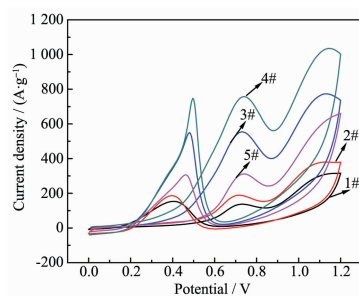
The electrochemical activity site of LDH was fully exposed and the high-speed transmission nano-channel of electrolyte was provided, which effectively improved the supercapacitance characteristics of CP@NiAl-LDH.

High Specific Area Cerium Oxide: Synthesis and Effect on Catalytic Performance of Pt-Based Catalysts

MO Yi-Jie, GUO Rui-Hua, AN Sheng-Li,
GUO Le-Le, ZHANG Jie-Yu, ZHOU Guo-Zhi

DOI:10.11862/CJIC.2018.247

Chinese J. Inorg. Chem., **2018**,**34**(11):1991-1999



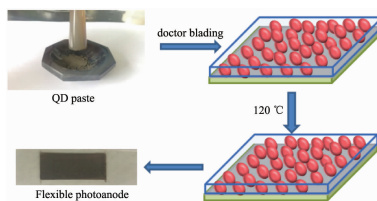
The effect of broom-like CeO₂ addition with different mass ratios ($m_{\text{CeO}_2}:m_{\text{Pt}}$) on the performance of Pt-based catalysts for electrocatalysis of ethanol was investigated. When $m_{\text{CeO}_2}:m_{\text{Pt}}=1:2$, the catalyst has the best catalytic activity, indicating that the addition amount of CeO₂ is a key factor to affect the electrocatalytic performance of the catalyst.

Preparation and Optimization of Flexible Quantum Dot Paste Based Photoanodes and Carbon Based Counter Electrodes

TONG Jing, FANG Wen-Juan, JI Xiao-He,
ZHAO Qing-Fei, ZHANG Hua

DOI:10.11862/CJIC.2018.252

Chinese J. Inorg. Chem., **2018**,*34*(11):2000-2008



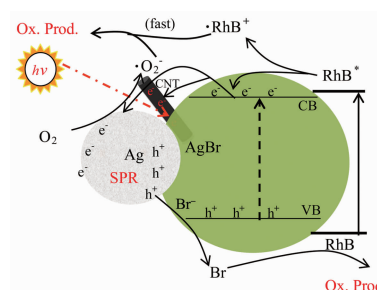
Oil soluble QDs are first made into paste without surface ligand exchange followed by doctor blading onto ITO/PET. The method is universal for flexible photoanodes and satisfactory efficiencies are obtained from various QDSCs assembled with modified counter electrodes.

Preparation and Properties of Plasma Photocatalyst Ag@AgBr/CNT/Ni Thin Films

LI Ai-Chang, ZHAO Di, LU Yan-Hong,
YANG Xiao-Jing, WANG Yao, LIU Jian-Xin

DOI:10.11862/CJIC.2018.262

Chinese J. Inorg. Chem., **2018**,*34*(11):2009-2018



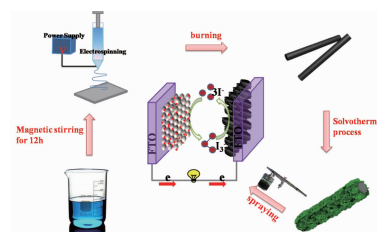
Ag@AgBr/CNT/Ni thin films exhibit a maximum photocatalytic activity and a superior photocatalytic stability to decompose RhB. The existence of CNT greatly increases the charge conductivity and the photocatalytic reduction property for dissolved oxygen of Ag@AgBr/CNT/Ni thin film, which is the main reason for the improvement of the photocatalytic properties of the film.

Film Thickness of Transition Metal MoS₂/CNFs Electrode Effect on Dye-Sensitized Solar Cell

LI Ling, WANG Dong-Yang, ZHANG Xue,
WANG Qi-Ming, FU Li-Shan, YU Min-Si,
XIAO Jin-Chong, ZHAO Xiao-Hui

DOI:10.11862/CJIC.2018.264

Chinese J. Inorg. Chem., **2018**,*34*(11):2019-2024



Schematic presentation of the dye-sensitized solar cells with the MoS₂/CNFs composite

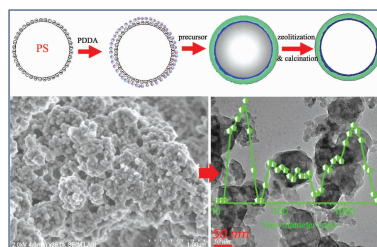
The dye-sensitized cell obtained an excellent photoelectric conversion efficiency by controlling the film thickness of the MoS₂/CNFs composite electrode material. Meanwhile, this study lays a good foundation for the batch production of the electrode film material.

Synthesis of Monolith Hierarchical Sodalite Zeolite Composed of Nanocrystals by Steam-Assisted Conversion Method

QIN Bo, KONG Qing-Lan, LIU Zhi-Ping,
YANG Xiao-Na, NING Wei-Wei, DU Yan-Ze,
ZHENG Jia-Jun

DOI:10.11862/CJIC.2018.240

Chinese J. Inorg. Chem., **2018**,*34*(11):2025-2031



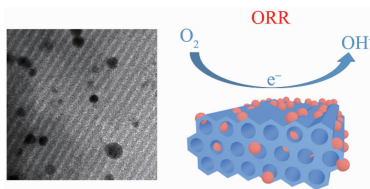
Polystyrene microspheres were succeeded in embedding into the crystals of SOD, and a hierarchical SOD zeolite with micropore-mesopore-macropore was synthesized by the “steam-assisted conversion (SAC)” method.

Preparation and Catalytic Activity for Oxygen Reduction Reaction of Tungsten Nitride-Tungsten/Nitrogen Doped Ordered Mesoporous Carbon

GUO Hu, LI Ling-Hui, WANG Tao,
FAN Xiao-Li, SONG Li, GONG Hao, XIA Wei,
JIANG Cheng, GAO Bin, HE Jian-Ping

DOI:10.11862/CJIC.2018.263

Chinese J. Inorg. Chem., **2018**,**34**(11):2032-2040



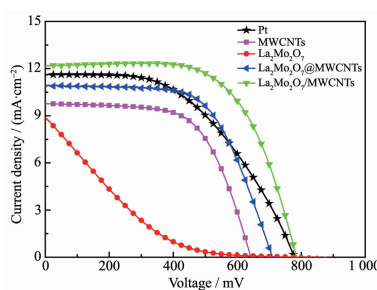
Low-cost catalyst Tungsten nitride-Tungsten/nitrogen doped ordered mesoporous carbon with highly specific surface area and highly ordered mesoporous structure has been synthesized, which shows excellent methanol tolerance and long-time electrochemical stability during ORR.

Synthesis and Performance of $\text{La}_2\text{Mo}_2\text{O}_7$ with MWCNTs Composite Materials as Pt-Free Counter Electrodes for Dye Sensitized Solar Cells (English)

WU Ke-Zhong, ZHAO Jia-Jing,
XIONG Yuan-Yuan, RUAN Bei, WU Ming-Xing

DOI:10.11862/CJIC.2018.249

Chinese J. Inorg. Chem., **2018**,**34**(11):2041-2048



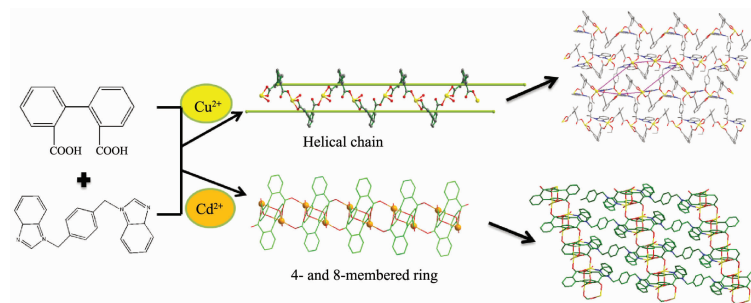
The $\text{La}_2\text{Mo}_2\text{O}_7/\text{MWCNTs}$ CE demonstrated higher PCE (6.09%), V_{oc} (786 mV) and J_{sc} ($12.19 \text{ mA} \cdot \text{cm}^{-2}$) than that of Pt, $\text{La}_2\text{Mo}_2\text{O}_7$, $\text{La}_2\text{Mo}_2\text{O}_7/\text{MWCNTs}$ and MWCNTs CEs from J - V curves.

Metal Ions Tuned Architectures Based on Diphenic Acid and 1,4-Bis(benzimidazol-1-ylmethyl)-benzene: Syntheses, Structures and Properties (English)

YANG Yu-Ting, TU Chang-Zheng, YAO Li-Feng,
XU Li-Li, WANG Jun-Shi, YIN Hong-Ju,
WANG Fan

DOI:10.11862/CJIC.2018.257

Chinese J. Inorg. Chem., **2018**,**34**(11):2049-2056



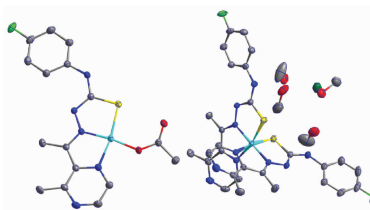
Complex **1** shows 2D 6^3 topology constructed by Cu-dpa helical chains. Layer structure of **2** consists of 1D chains containing alternated 4-membered and 8-membered rings.

Syntheses, Crystal Structures and DNA-Binding Properties of Ni(II)/Co(III) Complexes with Pyrazine Thiosemicarbazone Ligand (English)

WU Hao, WANG Yuan, SONG Yu-Fei,
ZHANG Ling, WU Wei-Na

DOI:10.11862/CJIC.2018.253

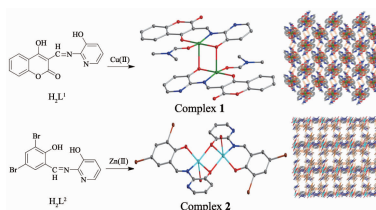
Chinese J. Inorg. Chem., **2018**,**34**(11):2057-2062



Two complexes $[\text{Ni}(\text{L})(\text{OAc})]$ and $[\text{Co}(\text{L})_2]\text{Cl} \cdot 4\text{CH}_3\text{OH}$ with a thiosemicarbazone ligand bearing pyrazine unit have been synthesized and characterized. The fluorescence spectra revealed that the complexes possessed higher affinity with DNA than the ligand.

Chinese J. Inorg. Chem., **2018**, *34*(11):2088-2096

Binuclear Nickel(II) and Zinc(II)
Complexes Based on 2-Amino-3-
hydroxy-pyridine Schiff Base:
Syntheses, Supramolecular Structures
and Spectral Properties (English)



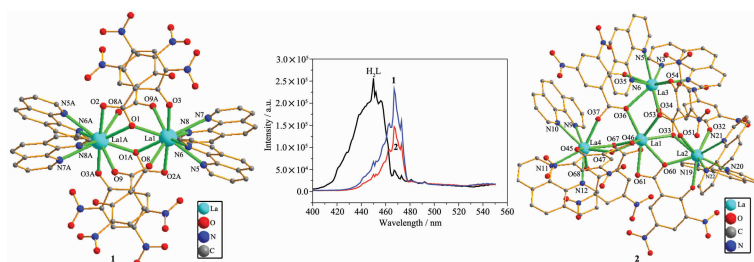
Two Schiff base binuclear Ni(II) and Zn (II) complexes all form the 3D network supramolecular structure by different intermolecular interaction. And complexes **1** and **2** exhibit green fluorescence emission.

CHANG Jian, ZHANG Hong-Jia, JIA Hao-Ran,
SUN Yin-Xia

DOI:10.11862/CJIC.2018.256

Chinese J. Inorg. Chem., **2018**,**34**(11):2097-2107

Syntheses, Crystal Structures and
Luminescence Properties of Two La(III)
Complexes Assembled by
3,5-Dinitrosalicylic Acid and
1,10-Phenanthroline (English)



YU You-Zhu, GUO Yu-Hua, NIU Yong-Sheng,
WU Xian-Li, FANG Ya-Ting, ZHUANG Na-Jie,
ZHANG Jun-Wei, LIANG Hao, WANG Fang

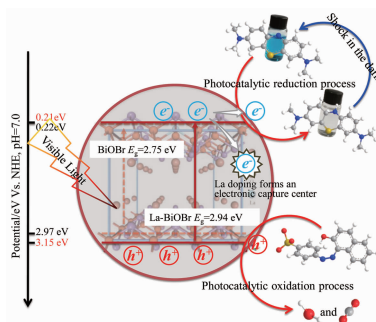
Two new complexes based on 3,5-dinitrosalicylic acid (H_2dns) and 1,10-phenanthroline(phen), namely $[La_2(dns)_2(Hdns)_2(phen)_4]$ (**1**) and $[La_4(dns)_6(phen)_6]$ (**2**), have been synthesized and characterized. Luminescent properties of **1** and **2** were also investigated.

DOI:10.11862/CJIC.2018.248

Chinese J. Inorg. Chem., **2018**,**34**(11):2108-2114

Distinct Role of La Doping in Regulating
the Photo-Oxidation and Reduction of
BiOBr Nanosheet (English)

FAN Qi-Zhe, LIAO Chun-Fa, LI Zhi-Feng,
ZHANG Zhi-Wen, CHEN Xin, YU Chang-Lin



A more positive potential of VB and a more negative CB were formed in La^{3+} doped BiOBr. The electron capture center formed by La^{3+} doping made the performance of oxidation and reduction of BiOBr be promoted and inhibited, respectively.

DOI:10.11862/CJIC.2018.255

Chinese J. Inorg. Chem., **2018**,**34**(11):2115-2126