

IN THIS ISSUE

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Cover

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EDITORIAL

1566

Special issue: molecular spectroscopy in the study of reaction mechanisms

Alberto Mezzetti* and Josefine Schnee

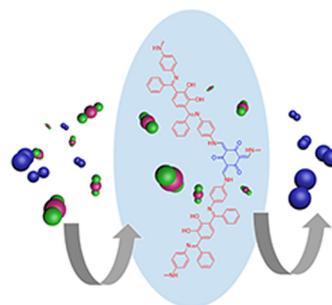


PAPERS

1567

A ketimine–ketoenamine-linked porous organic polymer: synthesis, characterization and applications

Guoxin Cui, Yan Li, Guan Yun, Yongzheng Zhao, Peng Gu, Jing Li, Jinghan Zhang, Shuxin Cui, Minghao Liu, Weiqi Zeng, Zhenlu Wang and Jian Jiang*



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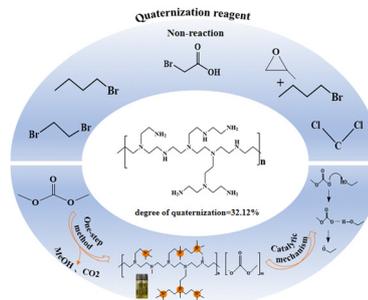
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Fundamental questions
Elemental answers

1574

One-step synthesis of quaternized polyethyleneimine and its application in transesterification reactions

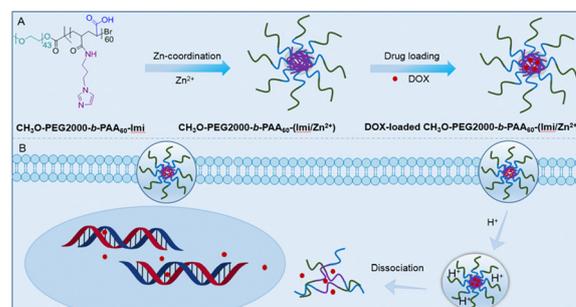
Junqiang Zhou, Zhentao Zhao, Yuxin Wang, Guangwen Xu and Lei Shi*



1588

Zn-crosslinking of copolymer-bearing imidazole pendants to form polymeric nanoparticles for pH-sensitive drug delivery

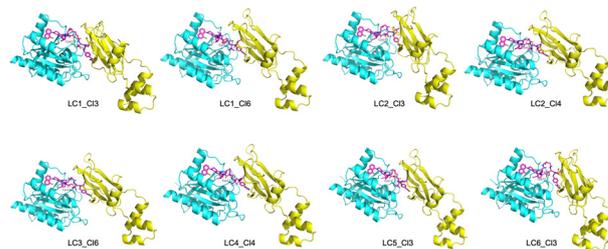
Wenjing Yang,* Mengna Zhang and Xubo Zhao*



1596

Computational assessment of the binding modes of the first VHL-recruiting PROTACs designed for oncogenic KRAs^{G12C}

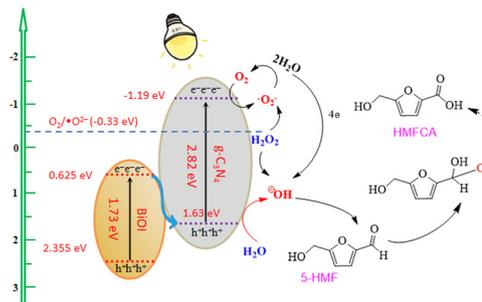
Tanos C. C. Franca, Eleonore K. M. Delaire, Michael Drummond, Maximilian C. C. J. C. Ebert, Al Ajamian and Steven R. LaPlante*



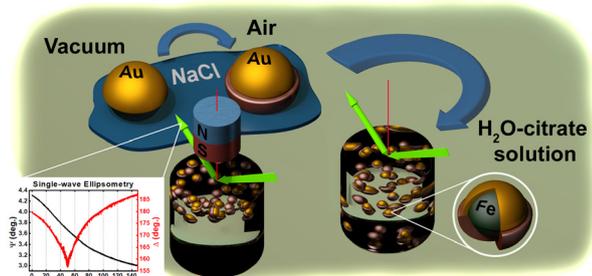
1607

Construction of a BiOI/g-C₃N₄ heterojunction photocatalyst: visible light-mediated efficient and selective oxidation of 5-hydroxymethylfurfural

Xuehan Zhang, Wenzhuang Wang, Wenling Xu, Qinghua Chuai, Yongming Bao and Feng Guo*



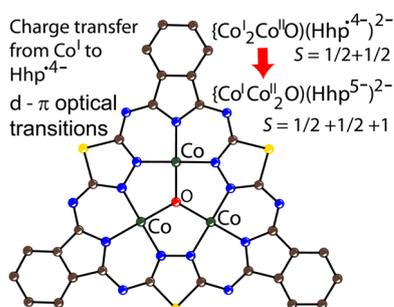
1619



Shell structure, magnetic and magnetodynamic properties of oxidized iron nanoparticles with partial gold coating

Sergey Lyaschenko,* Ivan Tarasov, Tatyana Andryushchenko, Ivan Yakovlev, Dmitry Velikanov, Mikhail Volochaev, Ivan Nemtsev, Ruslan Kriukov, Olga Maximova,* Dmitry Shevtsov, Sergey Varnakov and Sergei Ovchinnikov

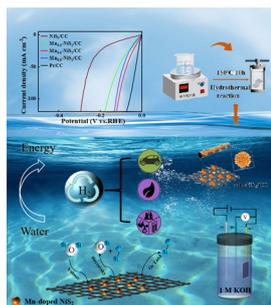
1631



Macrocycle- and metal-centered reduction of cobalt trithiadodecaazahexaphyrin (Hhp). Metal-to-ligand charge transfer in $\{\{\text{Co}^{\text{I}}\text{Co}^{\text{II}}\text{O}\}(\text{Hhp}^{4-})\}^{2-}$

Dmitry I. Nazarov, Alexey V. Kuzmin, Mikhail K. Islyaikin, Evgenii N. Ivanov, Alexander F. Shestakov, Maxim A. Faraonov, Salavat S. Khasanov, Akihiro Otsuka, Hideki Yamochi, Hiroshi Kitagawa and Dmitri V. Konarev*

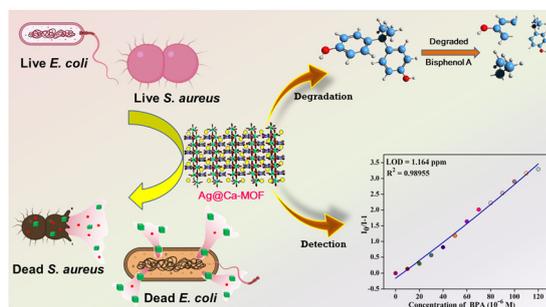
1640



Simple one-step hydrothermal preparation of Mn–NiS₂ for hydrogen evolution in alkaline environments

Junde Zhang, Xuejiao Xu, Dandan Liu, Aoze Wang, Shunyi Zhu and Guangming Nie*

1648



Ag@Ca-MOF composite: a dual-function material for luminescence detection and dose reliant photocatalytic breakdown of Bisphenol A

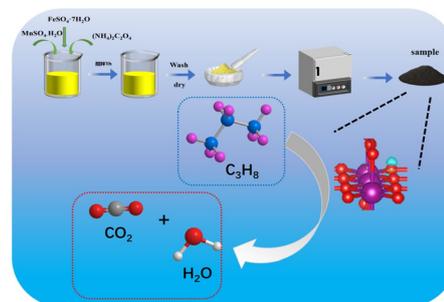
Vibhav Shukla, Gulshitaab Aalam, S. Wazed Ali, Musheer Ahamd, Nazrul Haq and Kafeel Ahmad Siddiqui*



1663

Superior performance of iron-doped manganese dioxide for low-temperature propane oxidation

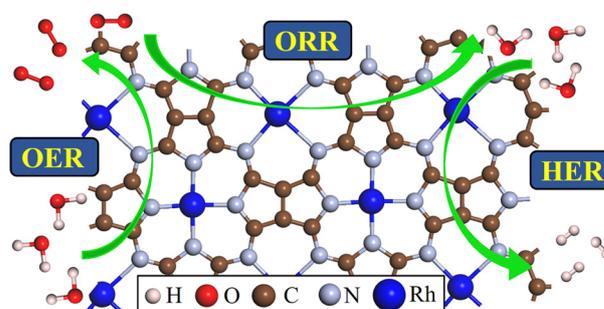
Zhengqiang Yang, Xinyi Yu, Jianchao Zhao, Rui Wang, Chuanhui Zhang and Haijie Cao*



1672

Theoretical screening of highly efficient multifunctional single-atom catalysts supported by pc-C₃N₂ monolayers for the electrocatalytic HER, OER and ORR

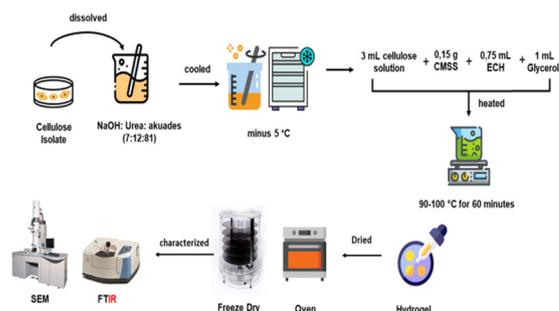
Liang-Cai Ma,* Hai-Juan Wang, Hao Li, Pan-Ge Yuan and Jian-Min Zhang



1686

Synthesis of a hydrogel from a combination of cellulose *Gracilaria verrucosa* and carboxymethyl sago starch using freeze-drying and oven-drying methods as a commercial textile dye adsorbent

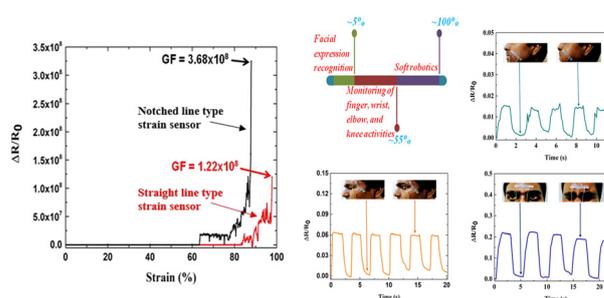
Nudia Tuljannah, Dewi Sondari, Putri Amanda, Arzqa Sabila Hanifah, Ahyar Ahmad* and Harningsih Karim



1700

Manufacturing of nanomaterial composites and flexible electronic devices with record high performance for human-technology design, human-computer interaction, biomedical sensing and soft robotics

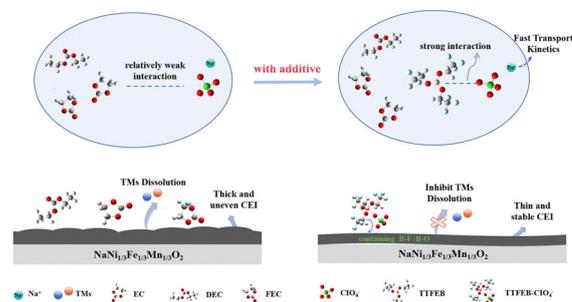
R. Madhavan*



1755

Stabilizing the cathode–electrolyte interphase and enhancing Na⁺ kinetics by a boron-based anion receptor additive

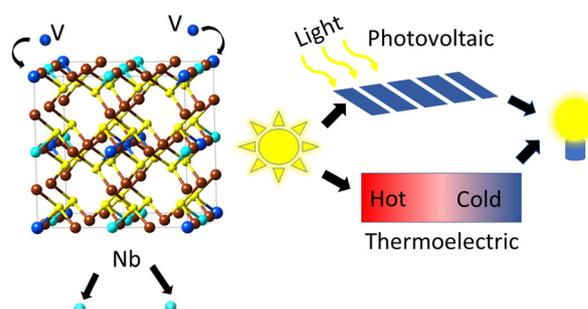
Jie Li, Yufan Long, Lei Li, Fan Pu, Wei Liao, Xiaowen Yu, Hongxin Liao and Xuebu Hu*



1763

Enhanced optical and thermoelectric properties of Cu₃Nb_{1-x}V_xS₄ through chemical substitution: a DFT approach

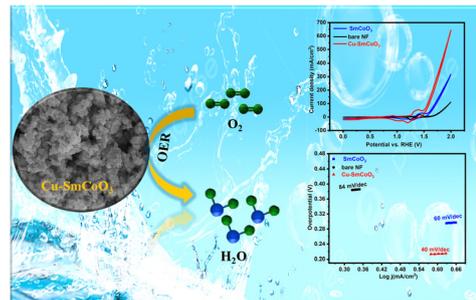
Bernard Lalroliana, Lalmuanchhana, Lalumhima, L. Celestine, Dibya Prakash Rai, Lalrinthara Pachuau, N. Surajkumar Singh, Shivraj Gurung and Lalhriatzuala*



1773

Copper doping in perovskite oxide: a novel route to high-performance oxygen evolution reaction

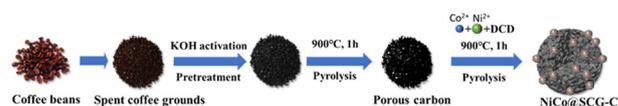
Rida Zahra, Abhinav Kumar,* Soumaya Gouadria, Subhash Chandra, Roopashree R, RSK Sharma, Piyus Kumar Pathak, Rahul Raj Chaudhary and Vijayalaxmi Mishra*



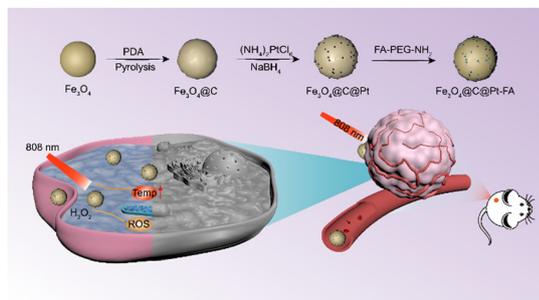
1786

Nano-alloy anchored on spent coffee ground-derived N-doped carbon frameworks for an enhanced oxygen reduction reaction and oxygen evolution reaction

Zihan Jia,* Zijian Gao, Shaokun Zhou and Xinjie Gao



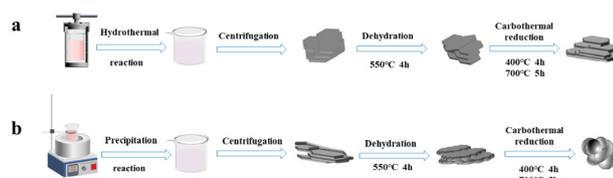
1795



Folic-acid-functionalized $\text{Fe}_3\text{O}_4@\text{C}@\text{Pt}$ nanozyme for synergistic catalytic-photothermal tumor therapy

Yanan Li,* Zhilong Xu and Lei Fan*

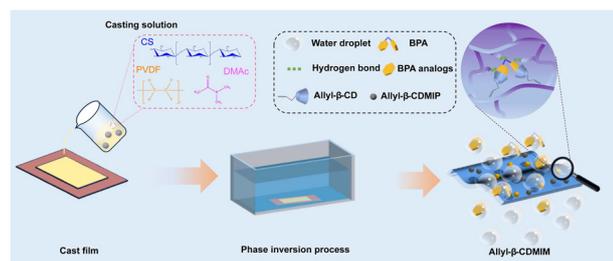
1802



Regulation of nano FePO_4 precursors and exploration of influencing mechanisms in LiFePO_4/C cathode

Yuzhu Yuan, Wenwen Zhou, Xinyi Dai,* Fuzhong Wu, Haijun Chen, Yi Mai, Renguo Zhang, Shan Guo and Jiexi Wang

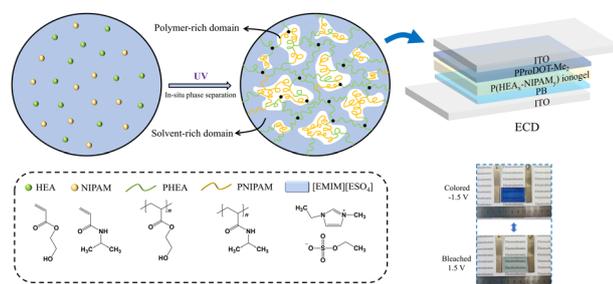
1814



Switchable adsorption/desorption bisphenol A and its derivatives by allyl- β -cyclodextrin functionalized intelligent molecularly imprinted polymer membrane

Wenzheng Xie, Kangping Ning, Zhipeng Chen, Jingwen Xia, Seitkhan Azat, Wei Liu,* Xiaoya Hu and Qin Xu*

1827



A tough and high adhesive ionogel electrolyte achieved by *in situ* phase separation for high-performance electrochromic devices

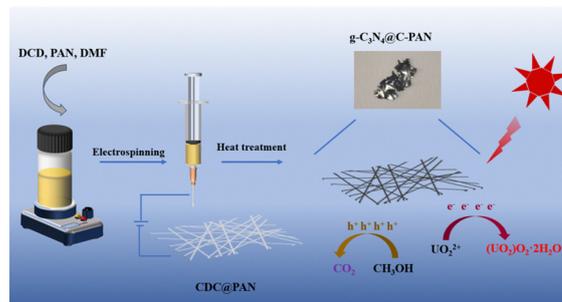
Dawei Nie, Jinxu Zhao, Jianming Zheng and Chunye Xu*



1836

Photocatalytic removal of U(VI) from wastewater using g-C₃N₄@C-PAN nanofiber membranes

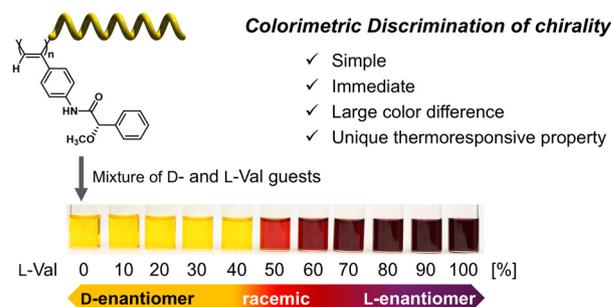
Jiao Zhang, Lijie Chen, Weilin Zhang, Shuai Han* and Zhongran Dai*



1845

A facile method for colorimetric determination of the enantiomeric purity of amino acids using poly(phenylacetylene) possessing (S)-mandelamide receptors

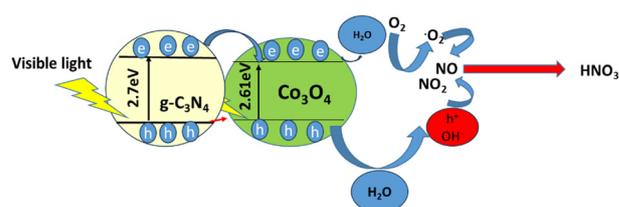
Keisuke Ogata, Airi Matsuyama, Ryota Suzuki, Satoshi Umeda, Katsuyuki Tsuda, Toshifumi Satoh, Toyoji Kakuchi* and Ryosuke Sakai*



1854

Photocatalytic removal of NO_x using cobalt oxide/graphitic carbon nitride nanocomposites under visible light irradiation

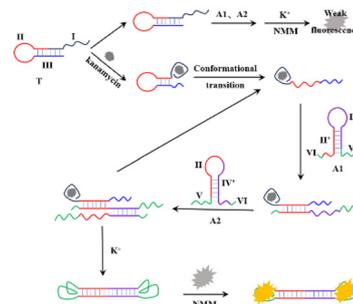
Yasser A. Attia,* Mohamed Taha and Shams H. Abdel-Hafez



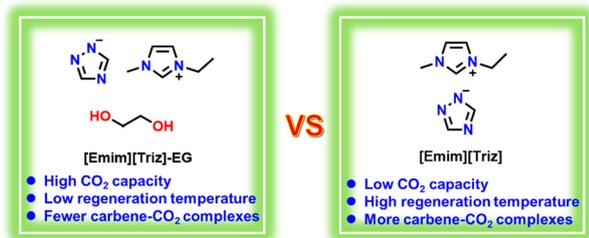
1865

Catalytic hairpin assembly-based double-end G-quadruplex signal amplification for sensitive fluorescence detection of kanamycin

Wanling Cui,* Yaxian Shao, Mengying Niu, Enguang Lv, Rui Wang, Mei Qiao, Xiaoxin Wang and Zhaohong Qian



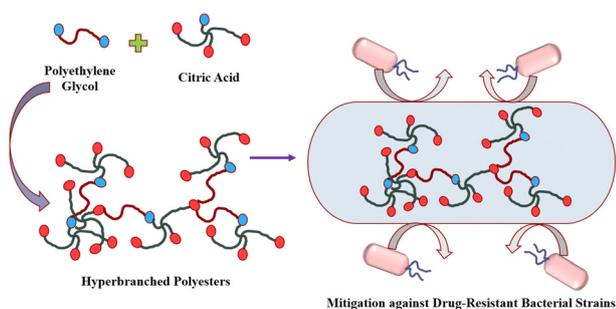
1875



Efficient CO₂ capture by deep eutectic solvents through reducing the reaction between carbenes and CO₂

Jiaxun Zhu, Bohao Lu and Dezhong Yang*

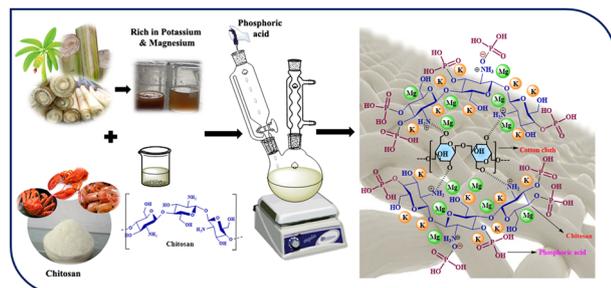
1883



Synthesis and characterization of hyperbranched polyesters from polyethylene glycol and citric acid: structural insights and antibiotic resistance mitigation against drug-resistant bacterial strains

Aniruddha Mukherjee, Sonai Dutta, Reetika Sarkar, Sayan Basak, Srijoni Sengupta, Subhadeep Chakraborty, Anirban Mukherjee, Payel Biswas, Satish Kumar and Abhijit Bandyopadhyay*

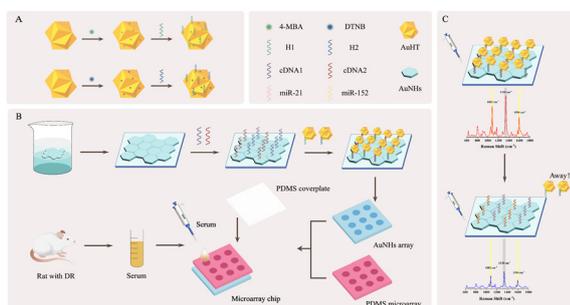
1899



A waste-to-wealth and safer bio-based flame retardant: a novel approach towards a phosphorus-functionalized chitosan-banana pseudo-stem composite

Akhil V. Nakhate,* Vinayak M. Kadam and Ganapati D. Yadav*

1908



Competitive recognition strategy based on a gold nano-hexagons microarray chip for simultaneous high-sensitivity detection of diabetic retinopathy-associated miR-21 and miR-152

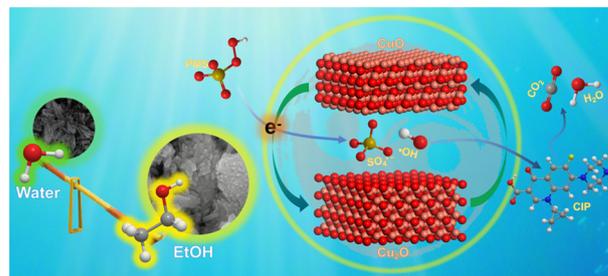
Jingwen Zhu, Xia Zong, Taijing Xu, Ying Chen, Xinjue Dai, Xiaowei Cao* and Changhua Lu*



1918

Modulation of the Cu_xO structure and morphology for acceleration of peroxymonosulfate oxidation

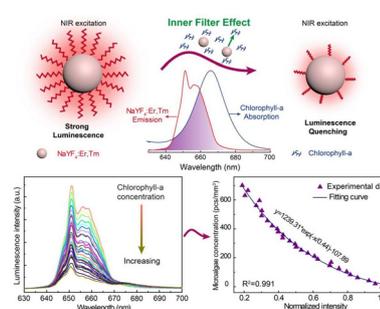
Yunhui Tian, Shilin Li and Guangxin Zhang*



1927

A novel upconversion nanoprobe-based approach for microalgae concentration determination

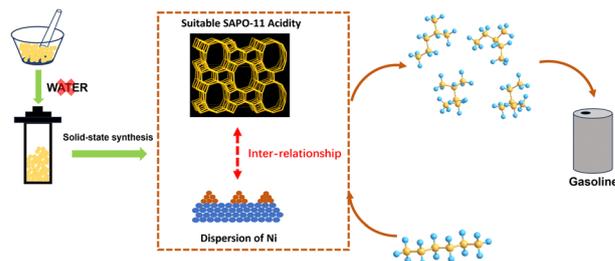
Hong Wang, Limin Wei, Fangyun Xin, Sicheng Xia, Xiumei Yin, Xixian Luo and Ying Tian*



1935

Regulation of the inter-relationship between the dispersion of Ni and suitable SAPO-11 acidity via solid-state synthesis in *n*-hexane hydroisomerization

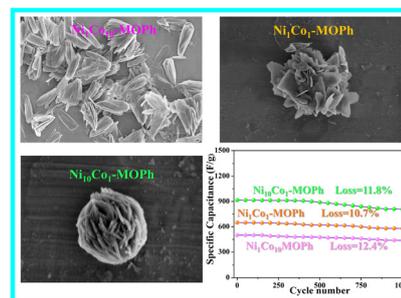
Lijun Wang, Yujia Wang,* Tao Jiang, Weiwei Tai, Na Sun and Qiao Han*



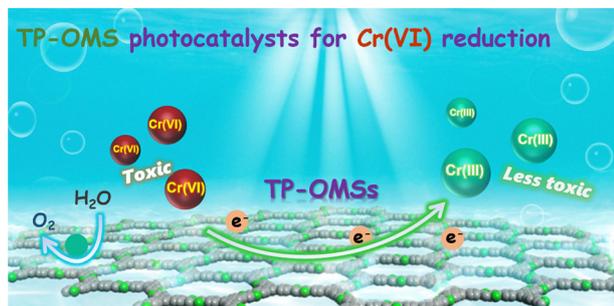
1945

A sphere-like NiCo metal-organic phosphate-modified glassy carbon electrode for electrochemical supercapacitors

Li Yu,* XiaoCai Ma and Qin Liang



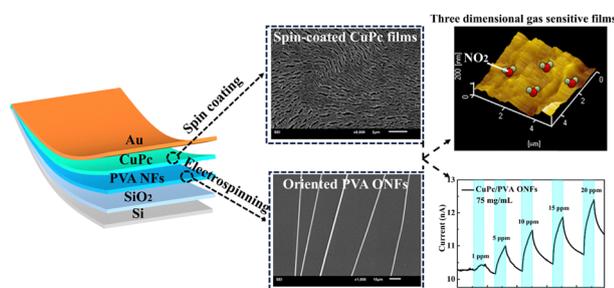
1952



Constructing thiophene-decorated organic molecular sieves as efficient photocatalysts for removing chromium(vi)

Jingjing Ge, Lingfang Meng, Xin He, Xin Xu, Jiabin Chu, Wan-Kai An,* Lixia Xie, Xianfu Zheng and Yunlai Ren*

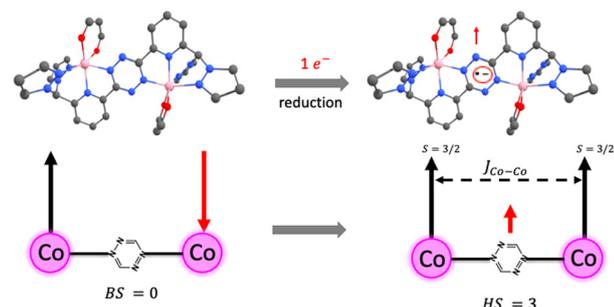
1961



Fabrication of three-dimensional porous copper phthalocyanine films and their applications for NO₂ gas sensors

Lu Wang,* Ziyang Cui, Yiqun Zhang and Li Juan Wang*

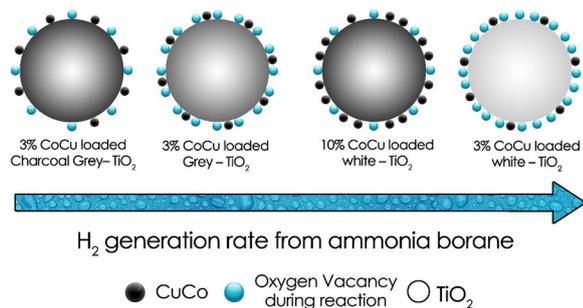
1972



The role of the radical tetrazine bridging ligand in spin-only magnetic coupling in complex dimers

Karrar Al-Ameed* and Ghadeer Abass

1982



In situ oxygen vacancy formation at the metal/TiO₂ interface during ammonia borane hydrolysis: a study of CuCo nanoparticles supported on various colored TiO₂ samples

Dinabandhu Patra, Reeya Garg, Ankita Singh, Ujjal K. Gautam, Ramakrishnan Ganesan* and Balaji Gopalan*



EXPRESSION OF CONCERN

1994

Expression of concern: Non-symmetrical dialkyl carbonate synthesis promoted by 1-(3-trimethoxysilylpropyl)-3-methylimidazolium chloride

Subodh Kumar and Suman L. Jain*

RETRACTION

1995

Retraction: Silver doped reduced graphene oxide as a promising plasmonic photocatalyst for oxidative coupling of benzylamines under visible light irradiation

Anurag Kumar, Aathira M. Sadanandhan and Suman L. Jain*

