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Cover

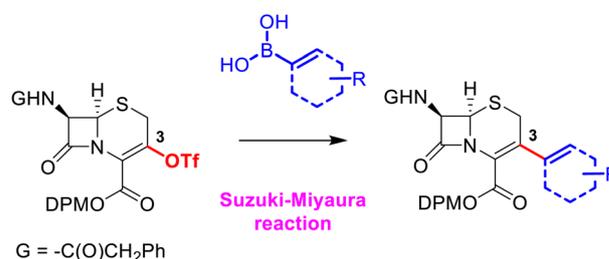
See Akhtam Amonov and Steve Scheiner, pp. 6524-6534. Image reproduced by permission of Steve Scheiner from *New J. Chem.*, 2025, 49, 6524. DNA helix by kjpgarqeter via Freepik.

COMMUNICATIONS

6512

Functionalization at the C3 position of the cephalosporin pharmacophore by palladium-catalyzed cross-coupling reactions

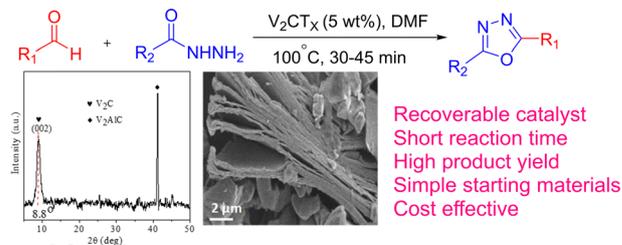
Fanny Faure, Margot Zambon, Yen Vo-Hoang, Patricia Licznar-Fajardo, Jean-Denis Docquier, Suzanne Peyrottes and Laurent Gavara*



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Two-dimensional vanadium carbide (V₂CT_x) MXenes for one-pot synthesis of 2,5-disubstituted-1,3,4-oxadiazoles

Sahana Raju, Yarabahally R. Girish, Mohd Sajid Ali, Hamad A. Al-Lohedan, K. Pramoda* and Kothanahally S. Sharath Kumar*



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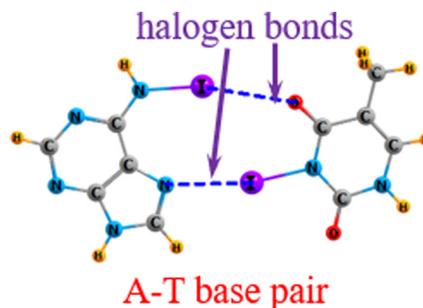


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Replacement of hydrogen by halogen bonds within nucleic acid base pairs

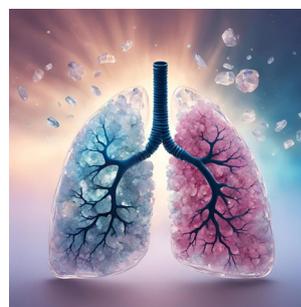
Akhtam Amonov and Steve Scheiner*



6535

Designing lenalidomide cocrystals with an extended-release profile for improved pulmonary drug delivery

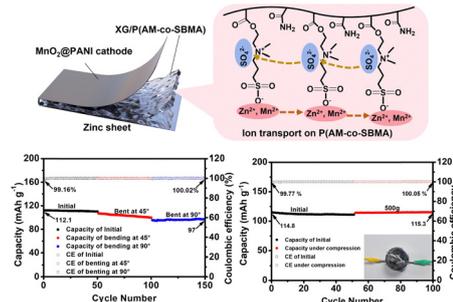
Martin A. Screen, Gary Tomkinson, James F. McCabe, Sean Askin, Clare S. Mahon, Mark R. Wilson and Jonathan W. Steed*



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A stretchable and adhesive zwitterionic hydrogel electrolyte and MnO₂/polyaniline cathode materials for flexible high-performance zinc-ion batteries

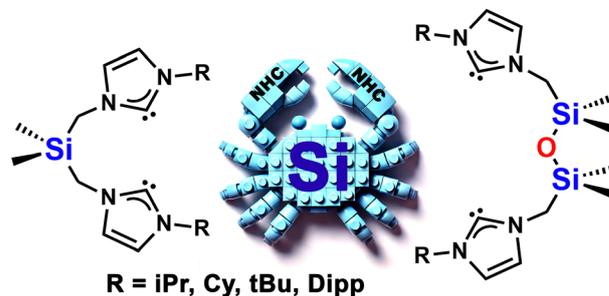
Xingyu Fan, Qingshan Han, Runtian Miao, Lingke Liu and Yueqin Li*



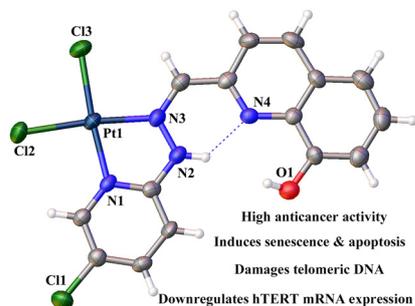
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Bis(N-heterocyclic carbene)s incorporating silicon in the ligand backbone

Braulio M. Puerta Lombardi, Katia A. McCallum, Alexander Harrison, Devon S. Louwe, Jayar Espejo, Karima Bouzidi and Roland Roesler*



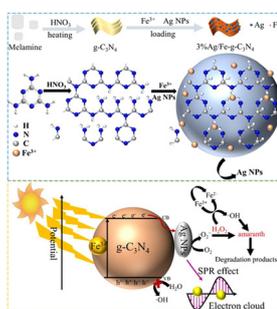
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Synthesis and antitumor mechanisms of two new 8-hydroxyquinoline platinum(II) derivatives

Run-Chun Wu, Ju-Mei Zhang, Xiao-Qiong Huang, Qiu-Ming Li, Zhen Zhou,* Hong Liang, Ming-Xiong Tan* and Qi-Pin Qin*

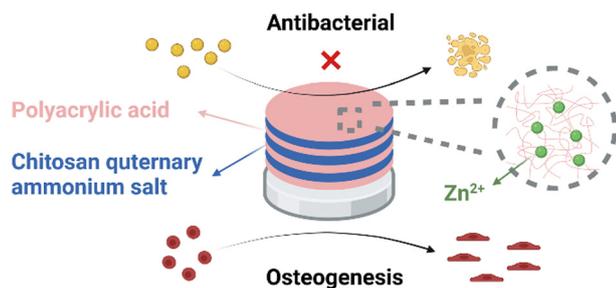
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Ag NPs-assisted Fe³⁺-doped g-C₃N₄ composite to enhance photocatalytic performance

Shiyu Wang, Jiali Yang, Xinyi Li, Yang Zhao* and Huan Wang*

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Layer-by-layer assembly of chitosan quaternary ammonium salt/polyacrylic acid-Zn²⁺ as a titanium dental implant coating with prominent antibacterial and osteogenic activities

Kechen Zhu, Liu Hong,* Yan Ding and Cheng Yang

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Ratiometric Sensing Fluoride

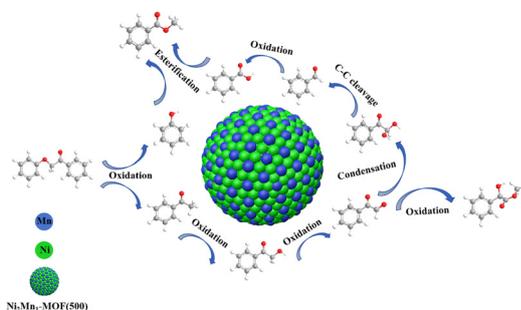


Aggregation-induced emission of boron substituted phenothiazine: synthesis and applications in fluoride ion sensing

Yan Wang, Guoqiang Li, Zengheng Wen, Zhuang Luo, Qiangqiang Jia* and Weidong Zhang*



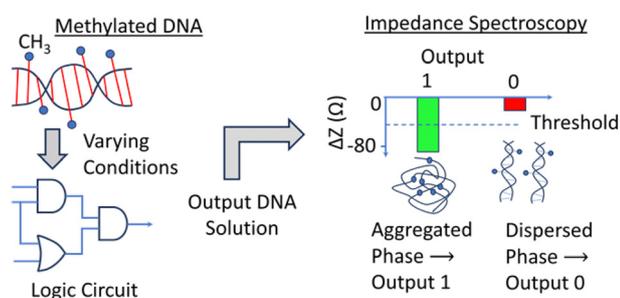
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Catalytic oxidative depolymerization of lignin dimers over NiMn-MOF-derived catalysts in the presence of oxygen

Qi Ye, Fei Ge, Xiaohui Yang* and Minghao Zhou*

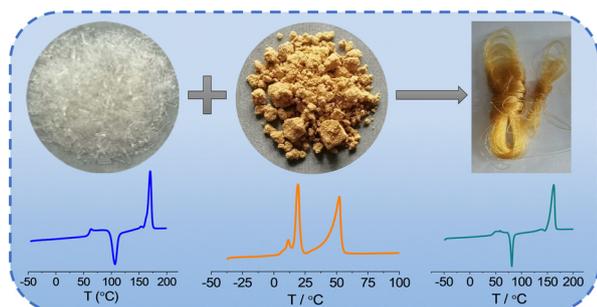
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Impedance-based DNA switches for solving the Boolean logic circuit

Tejal Dube, Deepak Sharma, Shalini Gupta and Manojkumar Ramteke*

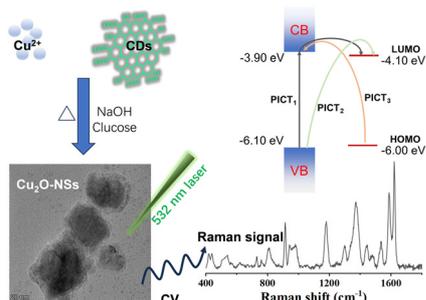
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Preparation of alkylated carbon dots and their application in heat-not-burn cigarettes

Xinhua Song, Jingxian Sun, Shuming Zhang, Shimin Liu, Shilu Zhou,* Ning Feng, Xiaoqian Liu, Wanhui Geng and Hongguang Li*

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Cu₂O nanosheets via facile one-pot synthesis: high-performance SERS substrate with chemical enhancement for environmental sensing

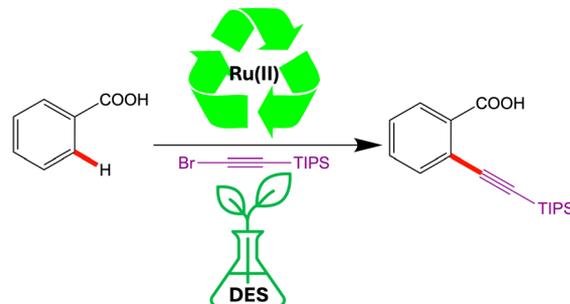
Hao Zhong, Zhenyu Lin* and Yongqiang Dong*



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Ruthenium-catalysed late-stage C–H alkylation of carboxylic acids using sustainable deep eutectic solvents

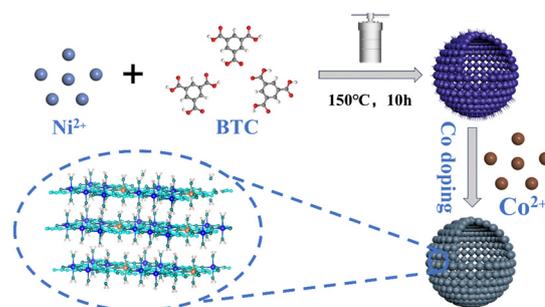
Julia Wtulich, Ian A. Nicholls and Subban Kathiravan*



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Conductivity enhancement mechanism and application of NiCo-MOF hollow sphere electrode materials in lithium-ion batteries

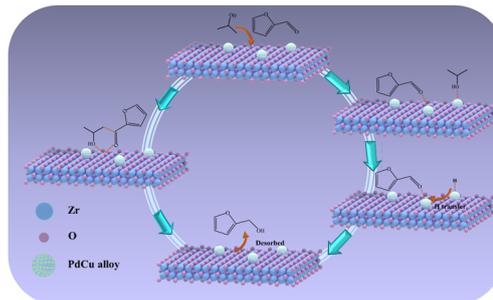
Tinghai Yang, Rengui Xiao,* Fenglian Lu, Xiang Ke, Mengxia Wang and Keliang Wang*



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Alloying palladium with copper on zirconium dioxide for accelerating the selective catalytic transfer hydrogenation of furfural to furfuryl alcohol

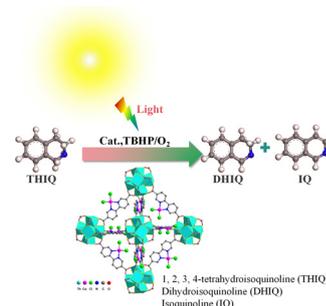
Chenghu Zhang, Zezhou Xing, Ying Li, Tong Xu, Yinghui Sun* and Jie Bai*



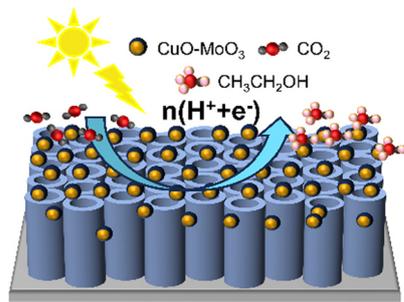
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A Cu-modified Th₆-based framework for regulating products in photocatalytic oxidation of tetrahydroisoquinoline

Ran-Wei Zhang, Xiu-Fen Li, Hui Zhou, Yu-Jie Zhao, Jing-Qi Zhao, Pengfei Wu, Qing Huang* and Dan Tian*



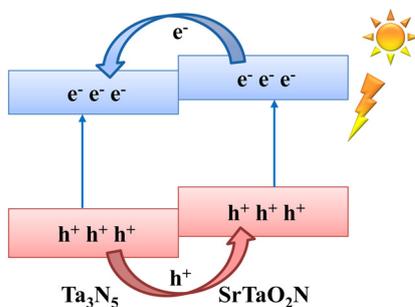
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Selective photoelectrocatalytic reduction of CO₂ to ethanol with a CuO–MoO₃/TiO₂NTs composite photoelectrode

Li Fei, Zheng Wanjun, Jin Liequn and Cao Huazhen*

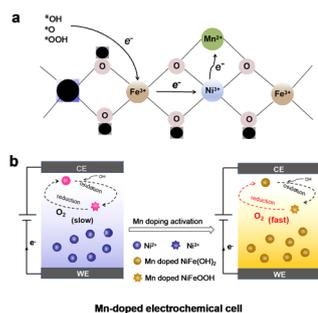
6713



First-principles calculations on the interfacial, electronic and photocatalytic properties of the Ta₃N₅/SrTaO₂N heterostructure

Xin Zhou,* Huan Zhang and He Qu

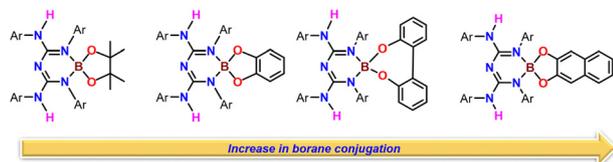
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Mn doping induced electronic modulation of self-supported NiFe layered double hydroxides for oxygen evolution reaction

Duandan Liu,* Yirui Tang, Kunran Liu, Zhongli Wu, Qinhuang Pan, Tiancheng Li, Jiayu Zhang, Chenxi Sun, Xinru Liu, Xiaobing Xu, Ligang Ma, Yuzheng Lu, Min Yu, Changyun Chen and Shicheng Yan

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Exploring tetra-coordinate bis-guanidinate-supported boron complexes: synthesis, characterization, and photophysical properties

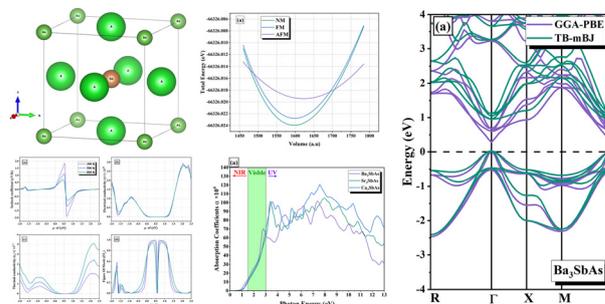
Sagrika Rajput, Nithya M. T., Sasmita Dhala, Krishnan Venkatasubbaiah and Sharanappa Nembenna*



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First-principles investigation of inorganic antiperovskite A_3SbAs ($A = Ba, Sr, \text{ and } Ca$): insights into thermoelectric and optoelectronic potential

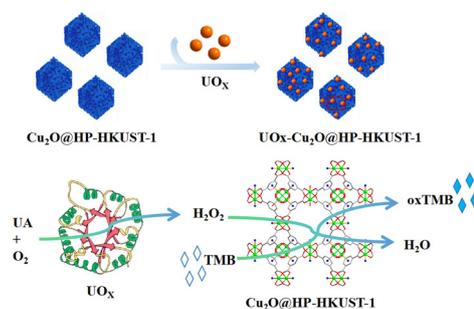
Lakhdar Benahmedi,* Anissa Besbes, Radouan Djelti, Sidahmed Bendehiba and Ali Aissani



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Facile synthesis of UO_x -doped $Cu_2O@HP\text{-}HKUST\text{-}1$ for sensitive colorimetric detection of uric acid

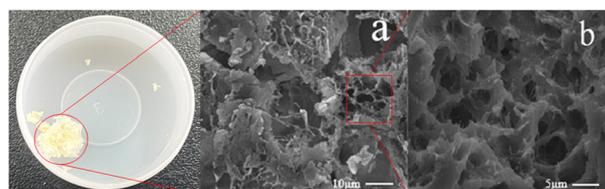
Juan Chai,* Yaxin Hou, Chenxiao Hou, Zhenghong Guo and Juan Li



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Construction of temperature-responsive imprinting cellulose aerogels for separation of neodymium

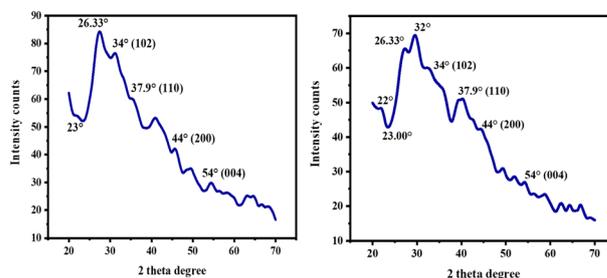
Lin Guo, Shanshan Zhao, Xudong Zheng,* Jian Rong,* Xi Zhang, Youming Zhu, Guomeng Li, Jinfeng Mei and Zhongyu Li*



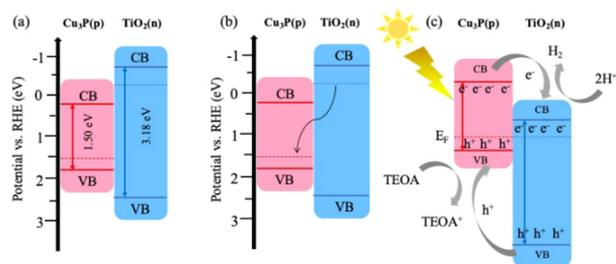
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A synergistic nanocomposite of tragacanth gum, starch, and graphitic carbon nitride: a cutting-edge platform for lornoxicam delivery

Aamir Nawaz, Muhammad Babar Taj,* Antoniadou Maria, Noushi Zaidi, Omar Makram Ali, Muhammad Imran Khan* and Abdallah Shanableh



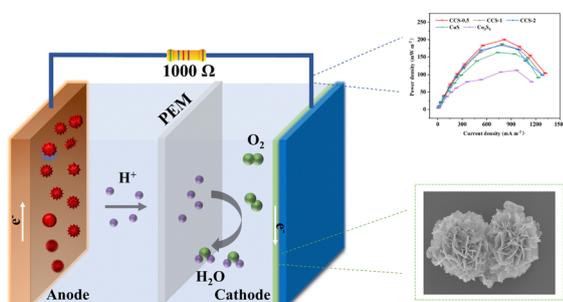
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The performance of $\text{Cu}_3\text{P}/\text{TiO}_2$ nanotubes as a novel photoelectrocatalyst for water electrolysis in an alkaline medium

Xin Zhou, Limin Liu, Xiaoliang Zhou,* Jingjie Li, Weilin Guo and Yang Tang

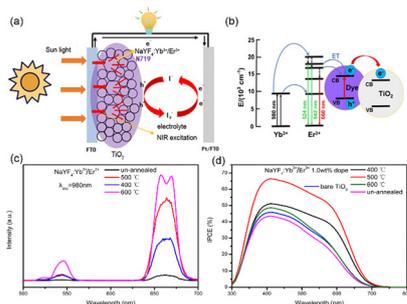
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A one-step hydrothermal method for novel Cu–Co bimetallic sulfides to improve the power performance of microbial fuel cells

Xuan Yang, Cong Li, Cheng Li, Jinrong Lu, Chenxin Wang, Hua Liu* and Zhi Song*

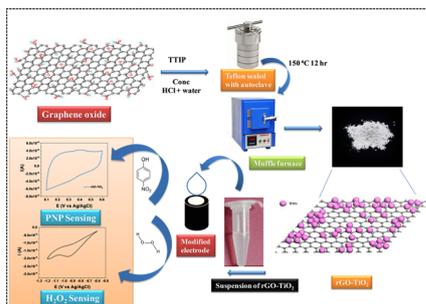
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$\text{NaYF}_4:\text{Yb}^{3+}/\text{Er}^{3+}$ nanorod/ TiO_2 mesoporous films for enhanced dye sensitized solar cells

Zhen Li, Guizhang Guo, Chengzhi Xue, Zhaocheng Wang and Libo Yu*

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Voltage-switchable detection of H_2O_2 and 4-nitrophenol with reduced graphene oxide titanium dioxide composite

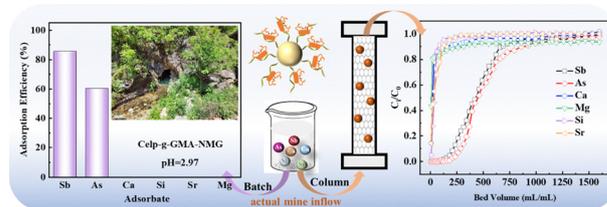
Anil A. Powar, Anita K. Tawade, Shivaji N. Tayade, Kiran Kumar K. Sharma, Dattatray J. Sathe and Vishnu Dev Gupta*



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Investigating the potential of *N*-methylglucamine modified cellulose microspheres for Sb(III) and Sb(V) removal from actual mine inflow

Jiangtao Yu, Wenkang Li, Fan Yang, Yi Yang, Juntao Yan, Deng Ding, Manman Zhang,* Xueyan Que* and Long Zhao*



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Thiazolothiazole-based metal–organic frameworks for photocatalytic coupling of benzylamine and degradation of organic dyes

Jun-Fei Li,* Jing-Wen Xu, Hui-Jun Feng, Qiao-Yun Liu* and Jun-Wen Wang*

