

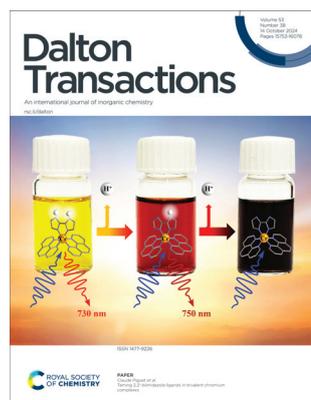
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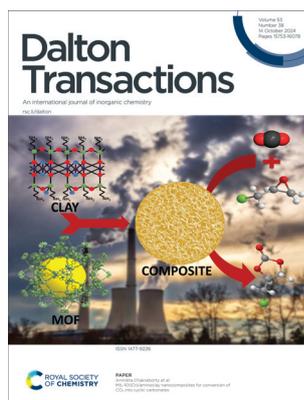
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pp. 15801–15814.

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Inside cover
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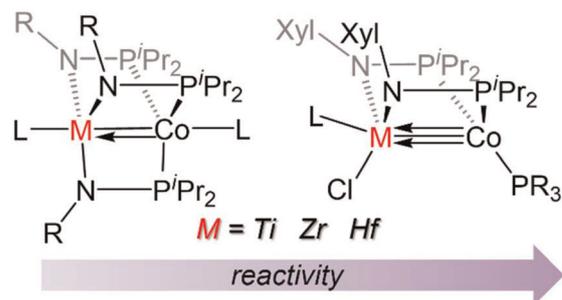
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PERSPECTIVE

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Polarized metal–metal multiple bonding and reactivity of phosphinoamide-bridged heterobimetallic group IV/cobalt compounds

Nathanael H. Hunter and Christine M. Thomas*

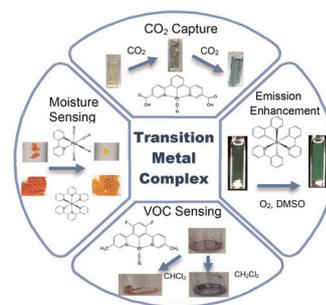


FRONTIERS

15782

Colour/luminescence changes of transition metal complexes induced by gaseous small molecules for monitoring reaction progress and environmental changes

Kazuteru Shinozaki



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Fundamental questions
Elemental answers

15787

Au/Ag@polyoxometalate core–shell structures: from nanoparticles to atomically precise nanoclusters

Xiu-Xia Ding, Wen-Zhu Yang, Sheng-Jie Yao, Xin-Yu Tong, Yan-Xiang Ling, Zhan-Guo Jiang,* Chun-Feng Wang* and Cai-Hong Zhan*

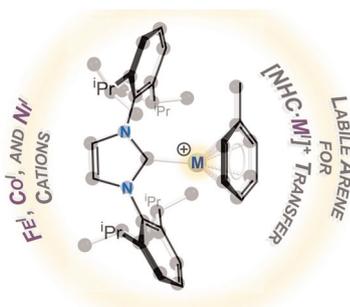


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Analogous carbene-stabilised $[M^I-(\eta^6\text{-tol})]^+$ cations ($M = \text{Fe}, \text{Co}, \text{Ni}$): synthetic access and $[\text{carbene}\cdot M^I]^+$ transfer

Annika Schulz and Terrance J. Hadlington*

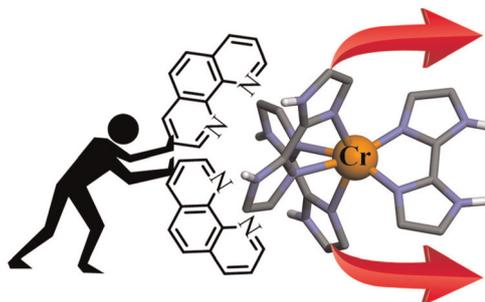


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Taming 2,2'-biimidazole ligands in trivalent chromium complexes

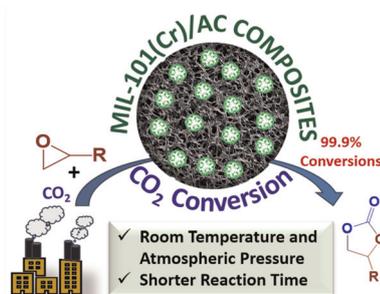
Julien Chong, Amina Benchohra, Céline Besnard, Laure Guénée, Arnulf Rosspointner, Carlos M. Cruz, Juan-Ramón Jiménez and Claude Piguet*



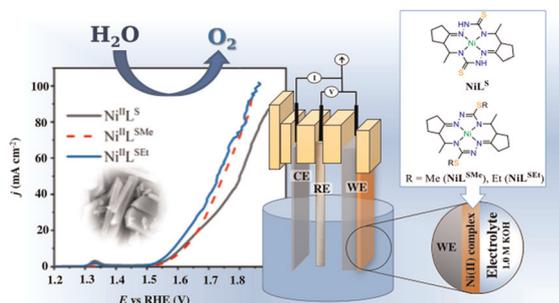
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MIL-101(Cr)/aminoclay nanocomposites for conversion of CO_2 into cyclic carbonates

Jyoti, Sarita Kumari, Samiran Chakraborty, Prakash Kanoo, Vinod Kumar and Anindita Chakraborty*



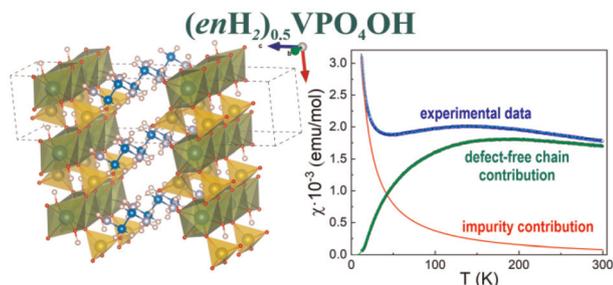
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Nickel(II) complexes with 14-membered bis-thiosemicarbazide and bis-isothiosemicarbazide ligands: synthesis, characterization and catalysis of oxygen evolution reaction

Iuliana Besleaga, Anastasia A. Fesenko, Anup Paul, Biljana Šljukić, Peter Rapta,* Armando J. L. Pombeiro,* Anatoly D. Shutalev* and Vladimir B. Arion*

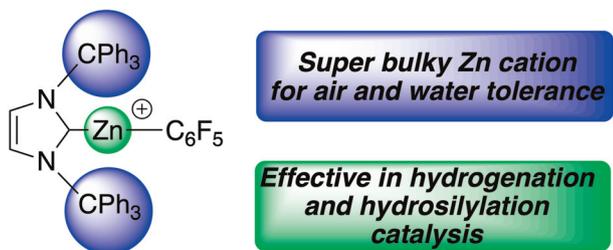
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Observation of Haldane magnetism in organically templated vanadium phosphate $(enH_2)_{0.5}VPO_4OH$

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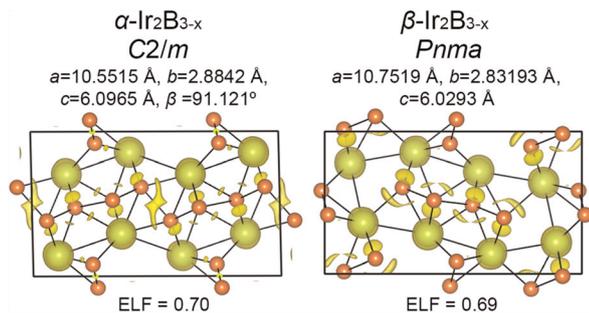
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Low coordinate Zn(II) organocations bearing extremely bulky NHC ligands: structural features, air-/water-tolerance and use in hydrosilylation and hydrogenation catalysis

Xuejuan Xu, Jordan Parmentier, Christophe Gourlaouen, Béatrice Jacques and Samuel Dagorne*

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Crystal structures, bonding and electronic structures of α - and β - Ir_2B_{3-x} compounds

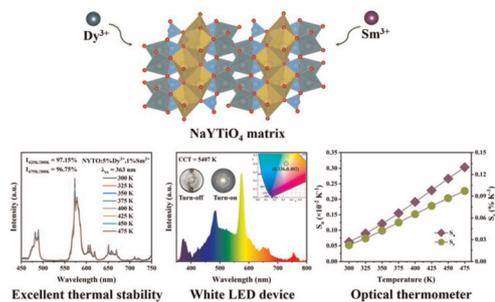
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Excellent luminescent thermal stability of $\text{Dy}^{3+}/\text{Sm}^{3+}$ co-activated multifunctional titanate single-phase phosphors

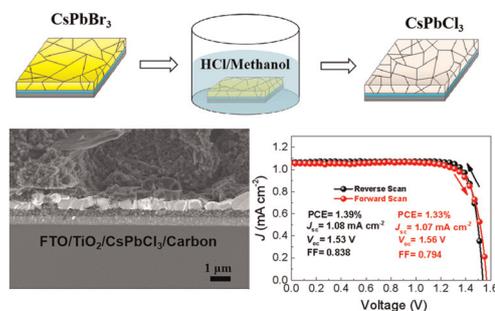
Feiyan Xie,* Junqiang Gu, Jiao Zou, Zhu Liu, Baojun Chen and Juling Xu



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Solution mediated halide exchange engineering for the fabrication of a thick CsPbCl_3 film and its application in photovoltaics with outstanding performance

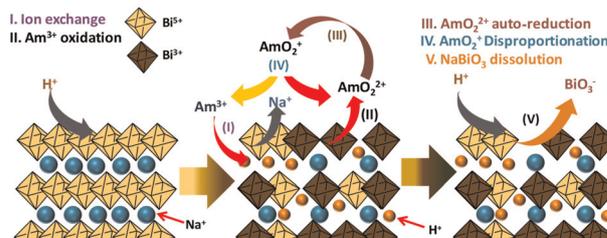
Xiaobing Cao,* Jian Zhou, Gengyang Su, Weidong Song, Zijin Liu and Jinquan Wei*



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Interlayer confinement mediated oxidation of americium by sodium bismuthate and stability of its higher redox states in acidic solution

Parveen K. Verma, Arunasis Bhattacharyya* and Prasanta K. Mohapatra*



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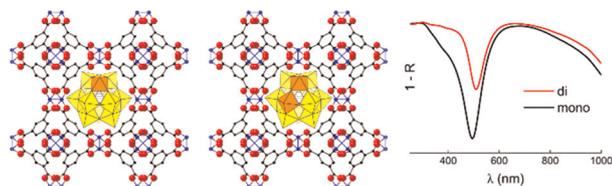
Effect of branching in the alkyl chain of diglycolamide on the sequestration of tetravalent actinides: solvent extraction and theoretical studies

Rajesh B. Gujar, Parveen K. Verma, Arunasis Bhattacharyya, Prasanta K. Mohapatra,* Richard J. M. Egberink, Jurriaan Huskens and Willem Verboom*



PAPERS

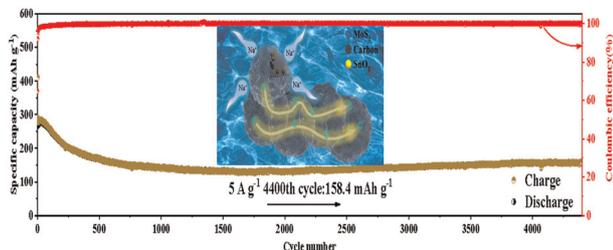
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José C. Orozco, Damola T. Shuaib, LaSalle Swenson, Ying-Pin Chen, Yu-Sheng Chen and M. Ishaque Khan*

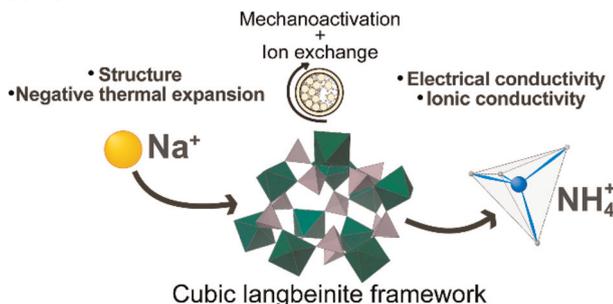
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Few-layer MoS₂ promotes SnO₂@C nano-composites for high performance sodium ion batteries

Zhilong Wu, Zhiqiang Huang, Maoxin Yu, Yanan Du, Junwen Li, Hai Jia, Zhiya Lin, Xiaohui Huang* and Shaoming Ying*

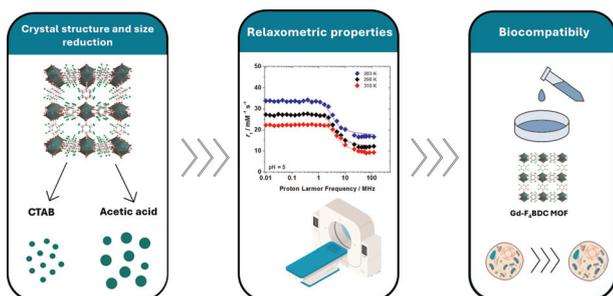
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NaZr₂(PO₄)₃ – a cubic langbeinite-type sodium-ion solid conductor

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Relaxometric properties and biocompatibility of a novel nanostructured fluorinated gadolinium metal–organic framework

Letizia Trovarelli, Alessandra Mirarchi, Cataldo Arcuri*, Stefano Bruscoli, Oxana Bereshchenko, Marta Febo, Fabio Carniato* and Ferdinando Costantino*

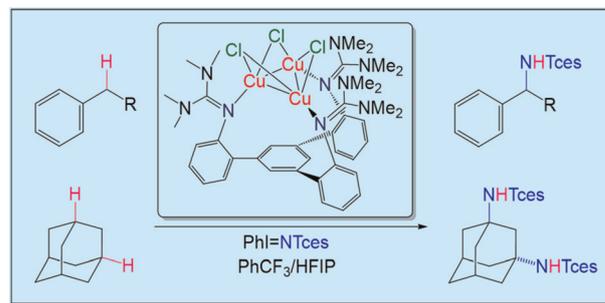


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C–H amination chemistry mediated by trinuclear Cu(I) sites supported by a ligand scaffold featuring an arene platform and tetramethylguanidiny residues

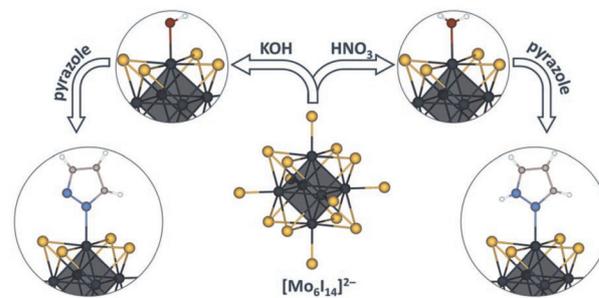
Meenakshi Sharma, Reece M. Fritz, Himanshu Bhatia, Joseph O. Adebajo, Zhou Lu, Mohammad A. Omary, Thomas R. Cundari,* Amitava Choudhury and Pericles Stavropoulos*



15959

Octahedral molybdenum iodide clusters with pyrazole or pyrazolate ligands

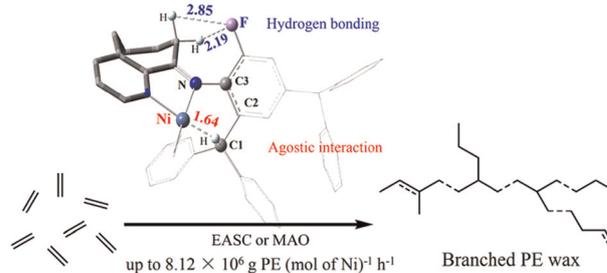
Ksenia S. Kozlova, Alexey S. Berezin, Natalia V. Kuratieva, Michael A. Shestopalov and Anton A. Ivanov*



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Synthesis of low-molecular weight and branched polyethylenes via ethylene polymerization using 9-(arylimino)-5,6,7,8-tetrahydrocyclohepta-pyridylnickel precatalysts

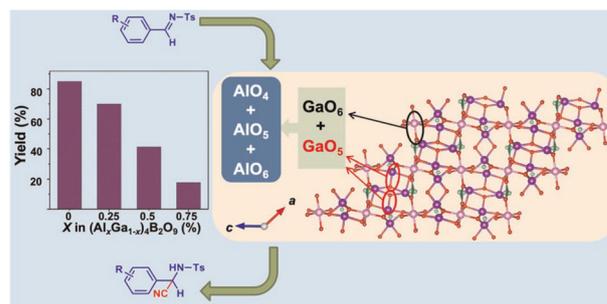
Zhao Ning, Yanping Ma,* Yanning Zeng,* Yizhou Wang, Aoqian Xi and Wen-Hua Sun*



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(Ga_{1-x}Al_x)₄B₂O₉: controlled surface acid–base properties and catalytic behavior towards the Strecker reaction

Weilu Wang,* Zhong Fan, Shiji Tang, Yun Wu, Ke Xu, Binbin Luo* and Steven L. Suib



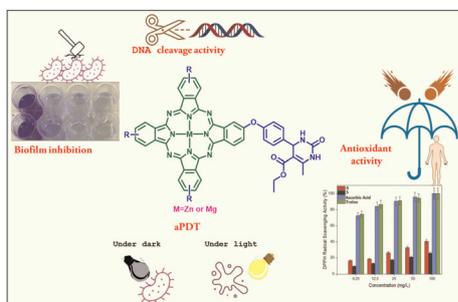
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Bioactive Ag(I) coordination complexes as dopants for castor oil plasticized ethylcellulose films

Francesca Scarpelli, Alessandra Crispini,* Iolinda Aiello,* Nicolas Godbert, Fabio Marchetti,* Sonila Xhafa, Giovanni De Filpo, Mariafrancesca Baratta, Riccardo Berardi, Pasquale Alfano and Eugenia Giorno

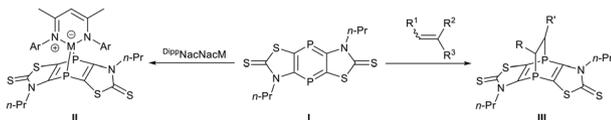
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Synthesis, photo-physicochemical and biological properties of novel tetrahydropyrimidone-substituted metallo-phthalocyanines

Kevser Harmandar, Esra Nur Kaya, Gülşah Tollu, Ibrahim F. Sengul, Sadin Özdemir and Devrim Atilla*

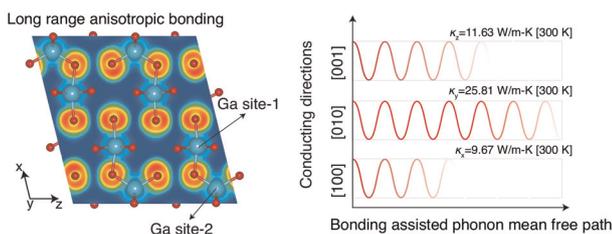
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[4 + 1]- and [4 + 2]-cycloadditions of a thiazole-2-thione-based 1,4-diphosphinine – broadening the scope

Tim Kalisch, Gregor Schnakenburg, Georgii I. Nikonov and Rainer Streubel*

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Role of phonon scattering and bonding in resolving lattice thermal conductivity ambiguities of β -Ga₂O₃

Ashutosh Srivastava, Madhubanti Mukherjee and Abhishek Kumar Singh*

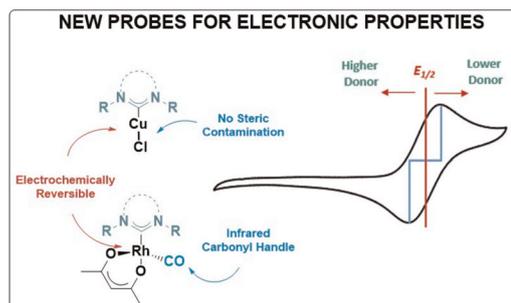


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A simply accessible organometallic system to gauge electronic properties of N-heterocyclic carbenes

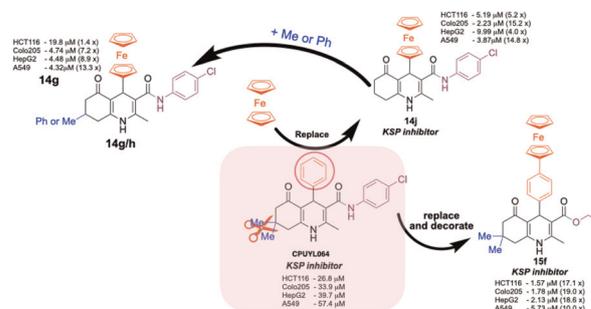
Francis Bru, Rex S. C. Charman, Laurens Bourda, Kristof Van Hecke, Laurence Grimaud, David J. Liptrot and Catherine S. J. Cazin*



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Design and synthesis of ferrocenyl 1,4-dihydropyridines and their evaluation as kinesin-5 inhibitors

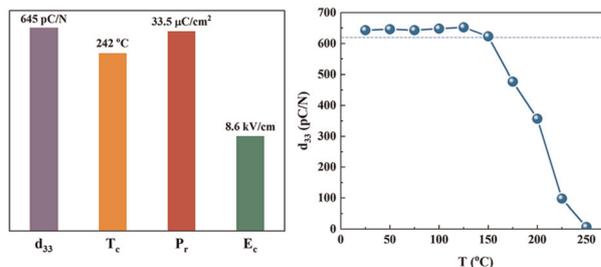
Karolina Kowalczyk, Andrzej Błaż, Krzysztof Krawczyk, Błażej Rychlik and Damian Plażuk*



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Significant effects of minor chemical composition changes on the structure and property of $(\text{Pb}_{1-y}\text{Sr}_y)(\text{Mg}_{1/3}\text{Nb}_{2/3})_{0.07}\text{Zr}_x\text{Ti}_{0.93-x}\text{O}_3:\text{zLa}$

Jian Guo, Ming-Yuan Yan, Hao-Ran Yu, Ji Zhang,* Guoliang Yuan and Shan-Tao Zhang*



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In situ fabrication of a plasmonic Bi@Bi₂O₂CO₃ core-shell heterostructure for photocatalytic CO₂ reduction: structural insights into selectivity modulation

Yannan Zhou, Jingyun Jiang, Hang Yin* and Shouren Zhang*

