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A multidisciplinary journal focussing on all fundamental science and technological aspects of catalysis

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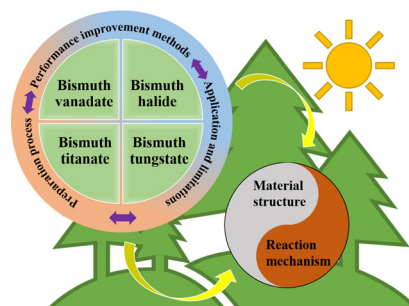
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2023, **13**, 5549.

MINI REVIEW

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Review on the preparation and performance improvement methods of bismuth photocatalyst materials

Lei Chen, Bin Guan,* Jiangfeng Guo, Yujun Chen,
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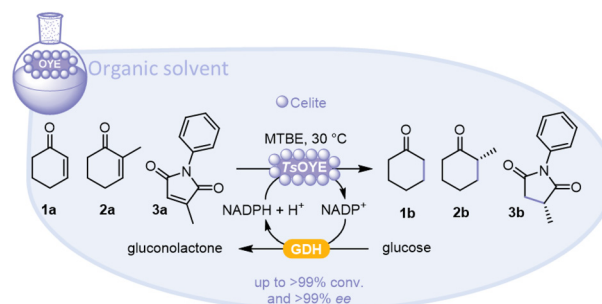


COMMUNICATIONS

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Biocatalytic reduction of alkenes in micro-aqueous organic solvent catalysed by an immobilised ene reductase

Rocio Villa, Claudia Ferrer-Carbonell
and Caroline E. Paul*



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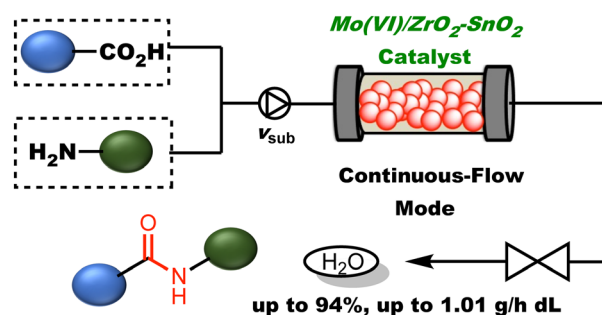


COMMUNICATIONS

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Continuous-flow dehydrative amidation between carboxylic acids and amines using modified mixed metal oxides as solid acid catalysts

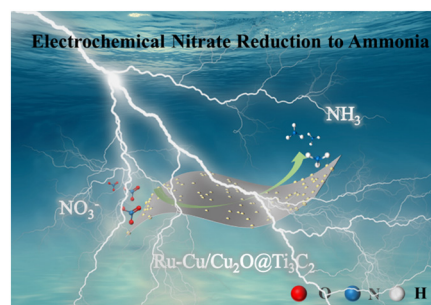
Haruro Ishitani,* Kota Takeno, Masahiro Sasaya and Shū Kobayashi*



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A two-dimensional MXene-supported CuRu catalyst for efficient electrochemical nitrate reduction to ammonia

Fang Zhao, Guangxin Li, Qianqian Hua, Jianghui Cao, Jiliang Song, Liguao Gao, Tingli Ma, Xuefeng Ren* and Anmin Liu*

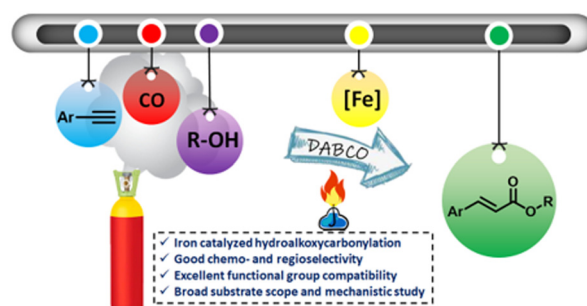


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Iron-catalysed highly selective hydroalkoxycarbonylation of alkynes using CO as C1 source

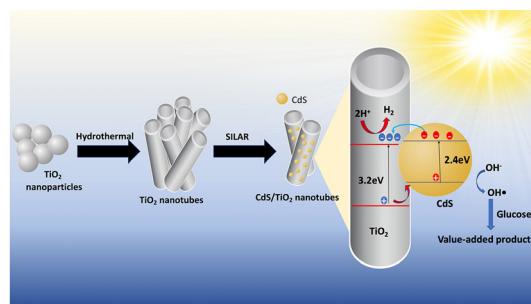
Tanuja Tewari, Rohit Kumar and Samir H. Chikkali*



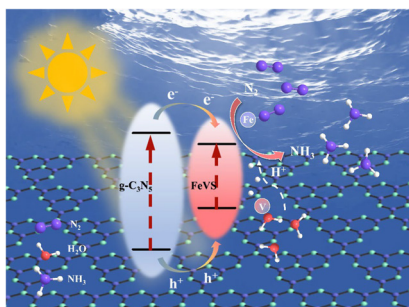
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CdS/TiO₂ nanostructures synthesized via the SILAR method for enhanced photocatalytic glucose conversion and simultaneous hydrogen production under UV and simulated solar irradiation

Kamonchanok Roongraung, Alexey Cherevan, Dominik Eder and Surawut Chuangchote*



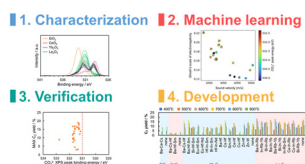
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The construction of a vanadium-doped polysulfide iron bimetallic active center for enhanced photocatalytic nitrogen fixation

Wei Cai, Kang Li, Jianuan Wen, Zhicheng Zhang, Qin Zhong and Hongxia Qu*

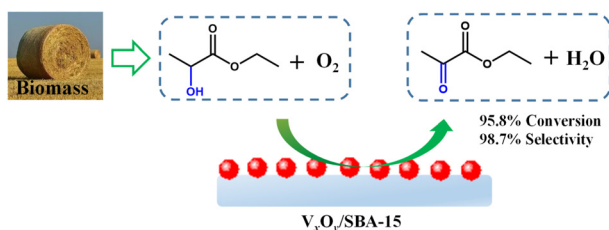
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Indirect design of OCM catalysts through machine learning of catalyst surface oxygen species

Fumiya Nishino, Hiroshi Yoshida, Masato Machida, Shun Nishimura, Keisuke Takahashi* and Junya Ohyama*

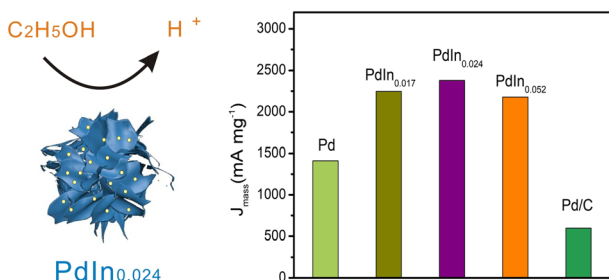
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Highly efficient oxidation of ethyl lactate to ethyl pyruvate with molecular oxygen over V_xO_y /SBA-15 catalysts

Jing Xu, Zonghui Liu,* Yali Zhou, Rui Fu, Zhe Wen, Bing Yan and Bing Xue*

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Indium-doped flower-shaped PdIn nanocatalysts for enhanced ethanol oxidation

Jingjing Dou, Xiang Li,* Bo Xi, Xiaoxuan Yang, Yaming Liu, Changqing Jin and Junjun Zhang

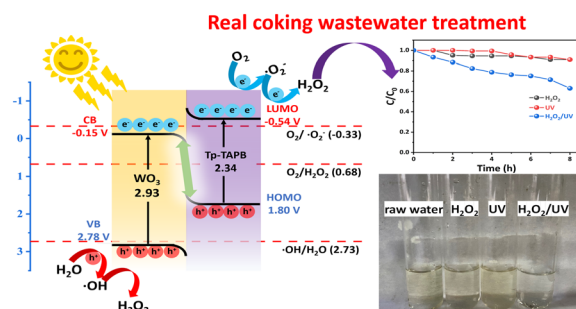


PAPERS

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Direct Z-scheme WO₃/covalent organic framework (COF) heterostructure for enhanced photocatalytic hydrogen peroxide production in water

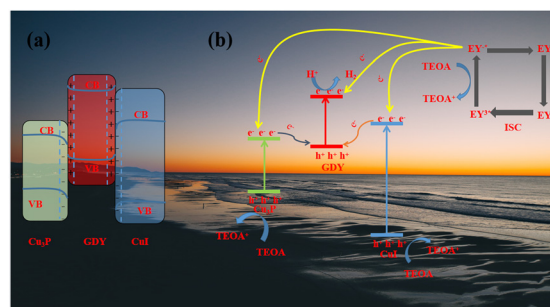
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Phosphating core-shell graphdiyne/CuI/Cu₃P S-scheme heterojunction confirmed with *in situ* XPS characterization for efficient photocatalytic hydrogen production

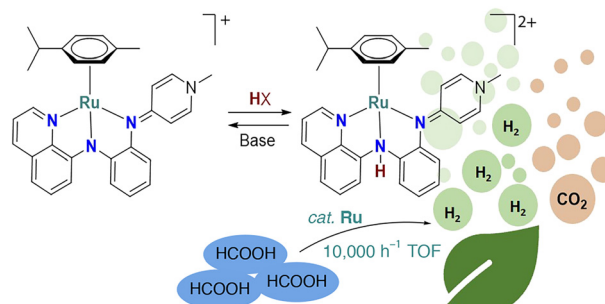
Jie He, Xinyu Miao, Youlin Wu and Zhiliang Jin*



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Efficient additive-free formic acid dehydrogenation with a NNN-ruthenium complex

Pascal Knörr, Nicolas Lentz and Martin Albrecht*



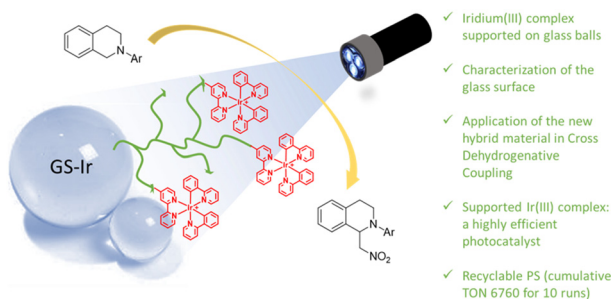
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Unlocking the potential of catalysts in thermochemical energy conversion processes

Avinash Alagumalai, Balaji Devarajan and Hua Song*



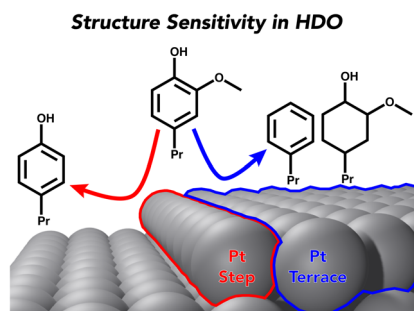
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Recycling of brush polymer containing iridium photocatalyst supported on glass balls

Audrey Beillard, Julien A. L. Renault, Duc-Hahn Nguyen, Warren Lhuillier, Jean-Luc Renaud, Aurélie Vicente and Sylvain Gaillard*

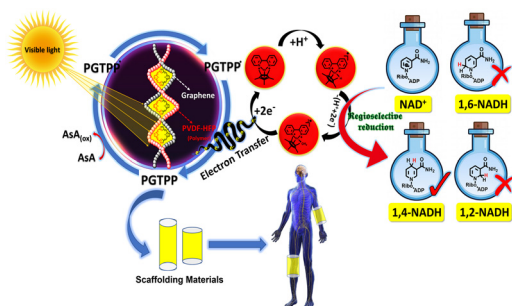
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Structure sensitivity in Pt-catalyzed hydrodeoxygenation of multi-oxygenated lignol model compounds

Justin Marlowe, Peter C. Ford, Mahdi M. Abu-Omar* and Phillip Christopher*

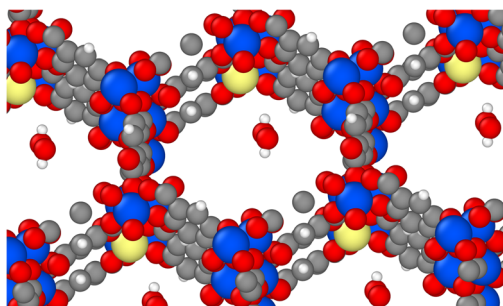
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Unleashing the solar revolution: harnessing the power of an ultra-strong tensile strength PGTPP nanocomposite photocatalyst for artificial photosynthesis

Kuldeep Kumar, Rajesh Kumar Yadav,* Rajesh Kumar Verma,* Satyam Singh, Rehana Shahin, Rajat Singhal, Navneet Kumar Gupta, Chandani Singh, Dilip K. Dwivedi and Jin-Ook Baeg*

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Entropic influence on the generation of Fe(IV)O species at mononuclear Fe(II) sites in metal-organic frameworks

Fernan Saiz* and Leonardo Bernasconi*

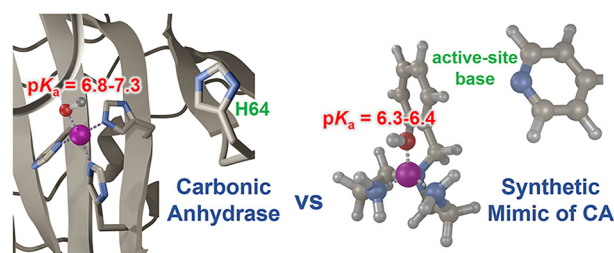


PAPERS

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Carbonic anhydrase mimics with rationally designed active sites for fine-tuned catalytic activity and selectivity in ester hydrolysis

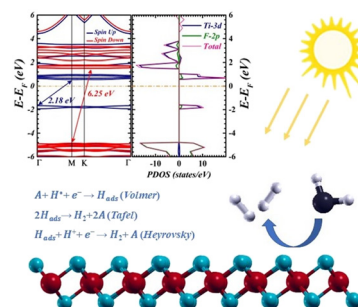
Forough Bahrami and Yan Zhao*



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Anti-symmetric exchange and hydrogen evolution in titanium halide monolayers

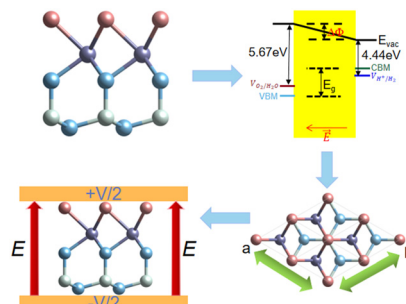
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Tuning of the electronic, photocatalytic and optical properties of Janus XWAZ₂ (X = S, Se, Te; A = Si, Ge; Z = N, P, As) monolayers via strain and external electric field

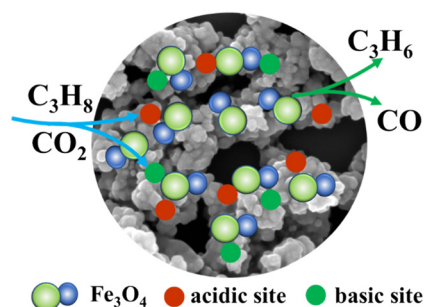
Zhen Gao, Xin He, Yao He* and Kai Xiong



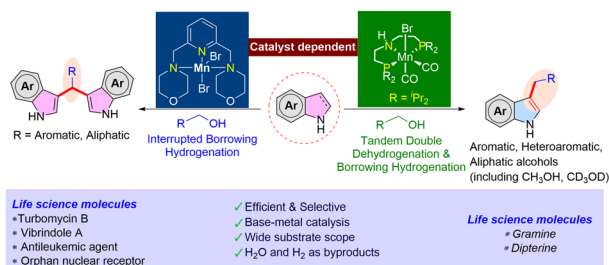
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High transformation of propane in reaction with CO₂ to propylene on ZrO₂-combined Fe-based catalysts

Yuan Wang, Yan Chen, Jianli Zhang, Qingxiang Ma, Subing Fan and Tian-Sheng Zhao*



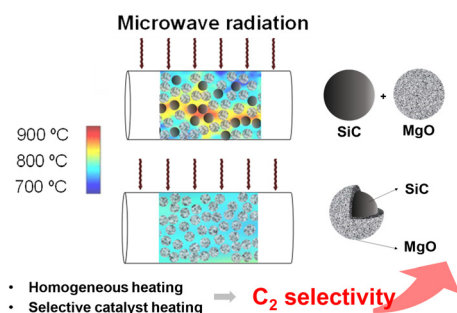
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Divergence in CH alkylation of indoles under Mn catalysis

Akash Mondal, Rohit Kumar, Abhijith Karattil Suresh, Manoj Kumar Sahoo and Ekambaram Balaraman*

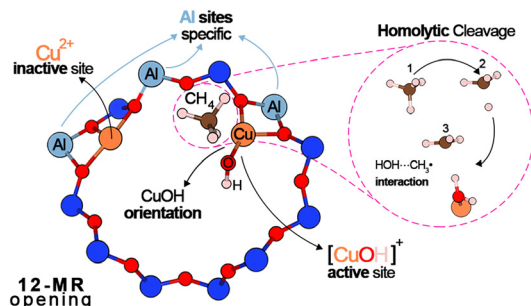
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Oxidative coupling of methane under microwave: core-shell catalysts for selective C₂ production and homogeneous temperature control

Reina Kaneda, José Palomo, Lingjun Hu and Atsushi Urakawa*

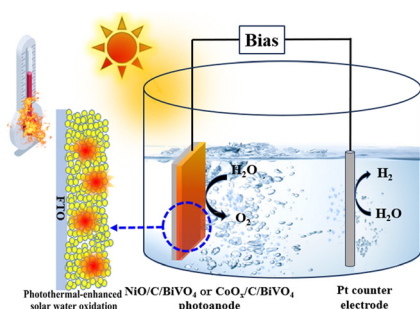
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Conditions to meet for the [CuOH]⁺ site to be favorable and reactive toward the conversion of methane to methanol over Cu-MOR zeolite

Muhammad Haris Mahyuddin,* Elbert Timothy Lasiman, Adhitya Gandaryus Saputro, Suci Valerie Casuarina, Nugraha and Hermawan Kresno Dipojono

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Photothermal-enhanced solar water oxidation on NiO/amorphous carbon/BiVO₄ and CoO_x/amorphous carbon/BiVO₄ photoanodes

Huichao He, Yuli Xiong, Hao Xiao, Tao Han, Yujie Guo, Jiahe Li, Qiwen Chen, Yunhuai Zhang,* Jinyan Du* and Gaili Ke*



CORRECTION

5785

Correction: CdS/TiO₂ nanostructures synthesized *via* the SILAR method for enhanced photocatalytic glucose conversion and simultaneous hydrogen production under UV and simulated solar irradiation

Kamonchanok Roongraung, Alexey Cherevan, Dominik Eder and Surawut Chuangchote*

