

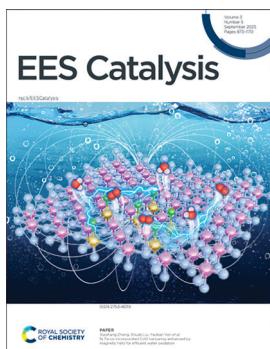
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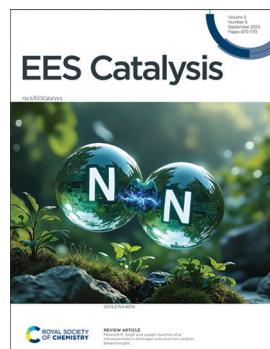
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Cover

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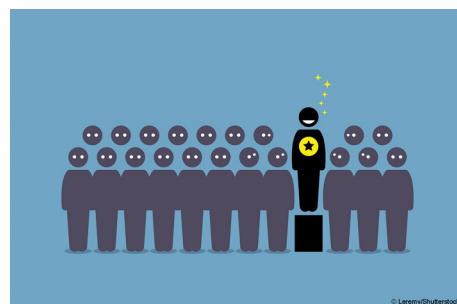
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EDITORIAL

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Outstanding Reviewers for *EES Catalysis* in 2024



REVIEWS

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Advancements in dinitrogen activation for catalytic breakthroughs

Vamsi Vikram Gande, Nishithan C. Kani, Ishita Goyal,
Rohit Chauhan, Yancun Qi, Samuel A. Olusegun,
Joseph A. Gauthier* and Meenesh R. Singh*



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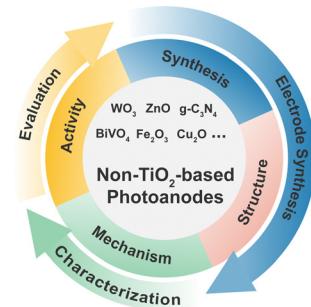
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REVIEWS

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Non-TiO₂-based photoanodes for photoelectrocatalytic wastewater treatment: electrode synthesis, evaluation, and characterization

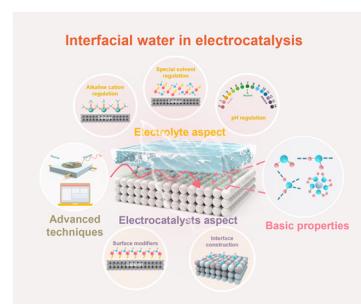
Jingyang Liu, Huizhong Wu, Jiangli Sun, Shuaishuai Li, Aydin Hassani and Minghua Zhou*



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Unlocking the potential: key roles of interfacial water in electrocatalysis

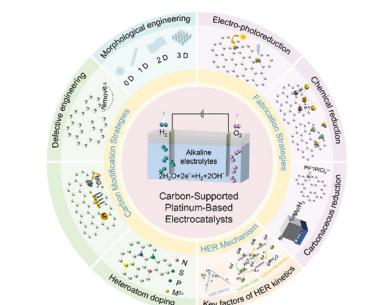
Zheng Tang, Zhongliang Dong, Lingjie Yuan, Bowen Li and Yinlong Zhu*



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Carbon-supported platinum-based electrocatalysts for alkaline hydrogen evolution

Qiuyue Yang, Jilan Zeng, Guowei Yang, Xinran Sun, Xiahui Lin, Kunlong Liu,* Jiayi Chen,* Sibo Wang* and Xue Feng Lu*

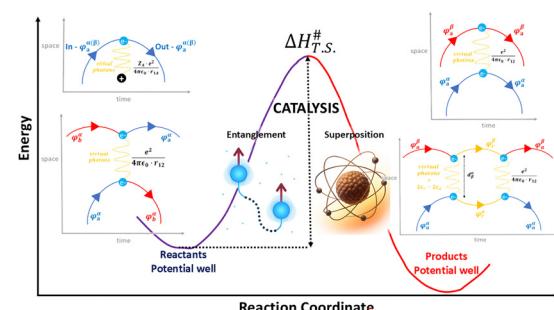


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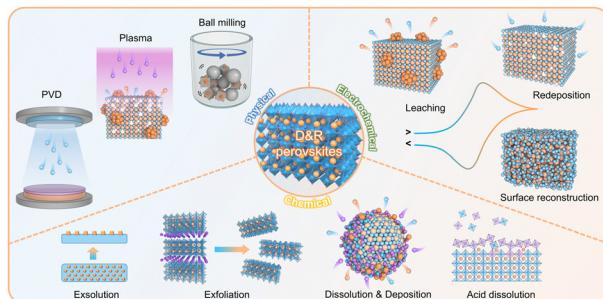
Quantum catalysts

Jose Gracia



MINIREVIEW

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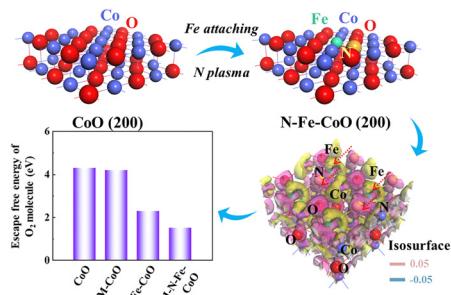


Disassembling and reassembling perovskites for oxygen electrocatalysis

Gao Chen,* Yubo Chen, Zezhou Lin, Ting Chen, Dongsheng Geng, Yanping Zhu,* Wei Wang and Wei Zhou*

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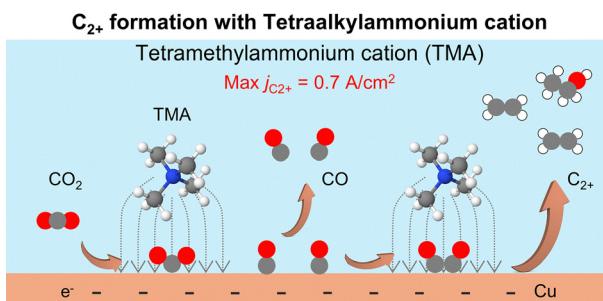
1044



N, Fe co-incorporated CoO nanoarray enhanced by magnetic field for efficient water oxidation

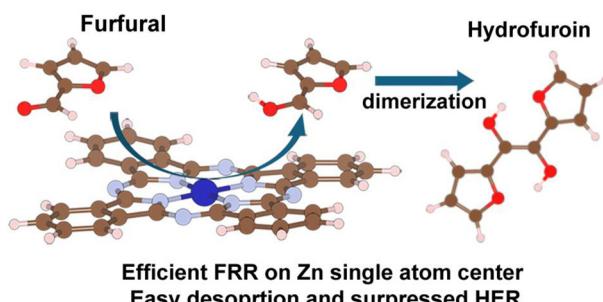
Keke Huang, Yaotian Yan,* Yaqiang Yu, Taili Yang, Liang Qiao, Jinchun Tu, Jiehe Sui, Wei Cai, Shude Liu* and Xiaohang Zheng*

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Alkali-cation-free electrochemical CO₂ reduction to multicarbon products in aqueous electrolytes containing tetraalkylammonium cations

Ryo Kurihara, Shotaro Ito, Shintaro Kato, Takashi Harada, Shuji Nakanishi and Kazuhide Kamiya*

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Jiaxiang Chen, Songbo Ye, Fangxin She, Xin Yang, Fangzhou Liu, Zixun Yu, Zhi Zheng, Ming Hong, Qiang Wang, Yuan Chen, Hao Li* and Li Wei*

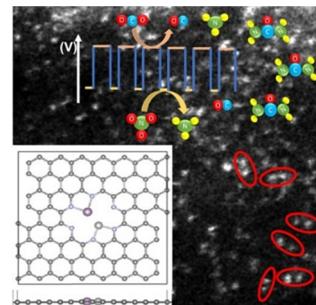


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Ni and Mo atom pairs as single sites on N-doped graphitic carbon for urea formation by simultaneous CO_2 and NO_3^- reduction with pulsed electrocatalysis

Jiajun Hu, Silvio Osella, Josep Albero* and Hermenegildo García*

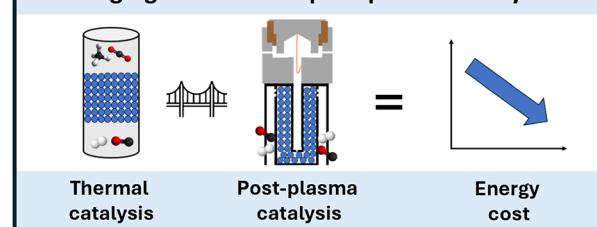


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Dry reforming of methane in gliding arc plasma: bridging thermal and post-plasma catalysis

Colin O'Modhrain,* Arturo Pajares,* Eduardo Coutino-Gonzalez, Yoran de Vos, Pablo Guardia, Yury Gorbanev, Bart Michielsen and Annemie Bogaerts

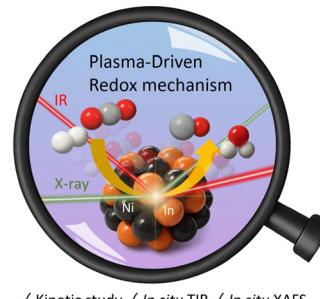
Dry reforming of methane in gliding arc plasma: Bridging thermal and post-plasma catalysis



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Plasma-driven redox mechanism in the reverse water–gas shift reaction over Ni–In intermetallic catalysts

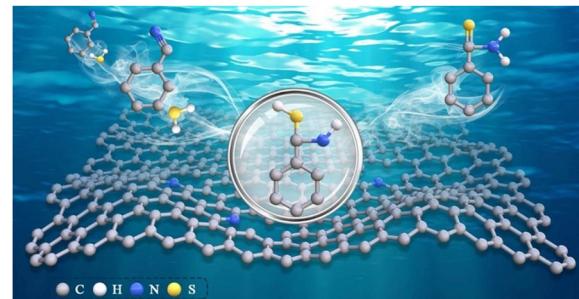
Dae-Yeong Kim,* Zhang Wenjun, Kaiyue Dong, Bang Lu, Duanxing Li, Satoru Takakusagi, Shinya Furukawa and Tomohiro Nozaki



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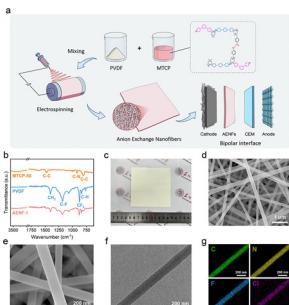
Atom-economical insertion of hydrogen and sulfur into carbon–nitrogen triple bonds using H_2S via synergistic C–N sites

Ganchang Lei, Jiayin Wang, Xinhui Liu, Shiping Wang, Shijing Liang, Lijuan Shen,* Yingying Zhan* and Lilong Jiang*



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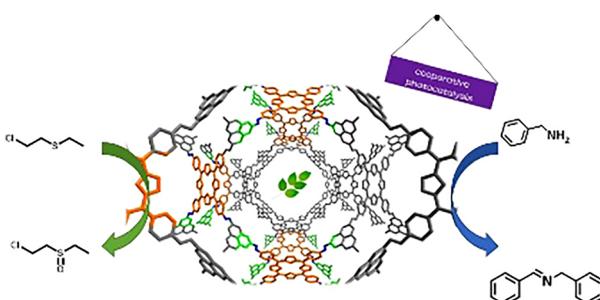
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Biphasic anion-exchange nanofibers enable bipolar junction engineering for enhanced electrocatalytic CO_2 conversion in acidic media

Peng Liu, Fenglei Lyu, Xiya Yang, Zhangyi Zheng, Wei Hua, Shiwei Mei, Mutian Ma, Haojun Wang, Xiaolin Ge, Liang Wu, Tongwen Xu, Zhao Deng and Yang Peng*^{*}

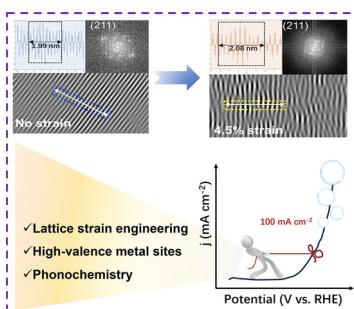
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Three-in-one approach to fabricate a porous porphyrin-heptazine polymer for highly efficient visible light photocatalysis

Weijie Zhang, Zhou Lu, Dipesh Adhikari, Shan Li, Thamraa AlShahrani and Shengqian Ma*

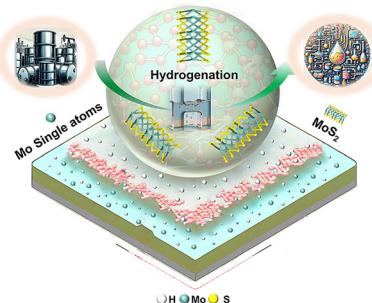
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Inhibiting overoxidation of an $\alpha\text{-MnO}_2$ electrocatalyst by the lattice strain effect for efficient water oxidation

Fang-Yi Li, Shan Guan, Jianming Liu, Changhao Liu, Junfeng Zhang, Ju Gu, Zhaosheng Li, Zhigang Zou and Zhen-Tao Yu*

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Spontaneous generation of an atomically dispersed Mo and MoS₂ coupling catalyst via reaction induction transformation for enhancing local hydrogen concentration in hydrogenation

Guangxun Sun, Peng Xue, Changle Yue, Yang Li, Hongfu Shi, Xin Zhang, Fengyu Tian, Junxi Li, Zekun Guan, Bin Liu, Zhi Liu,* Yunqi Liu* and Yuan Pan*



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Amino functionalization of the support toward enhanced selective hydrogenation of dimethyl oxalate to methyl glycolate on silver–silicon catalysts

Guilin Dong, Haiyong Wang, Qian Jiang, Yuhe Liao and Chenguang Wang*

