Journal of Materials Chemistry A

Materials for energy and sustainability

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IN THIS ISSUE

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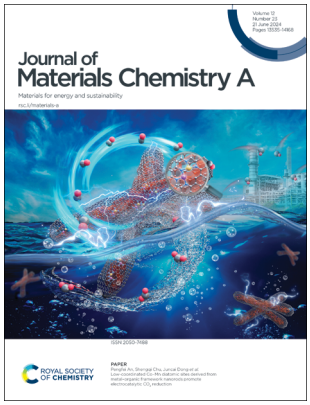

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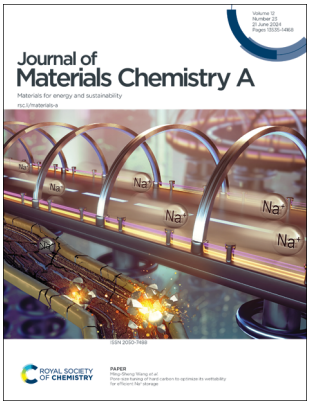

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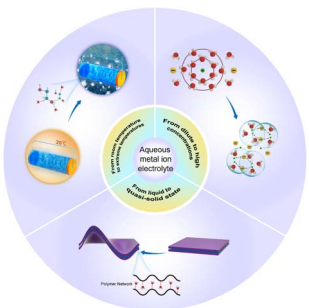
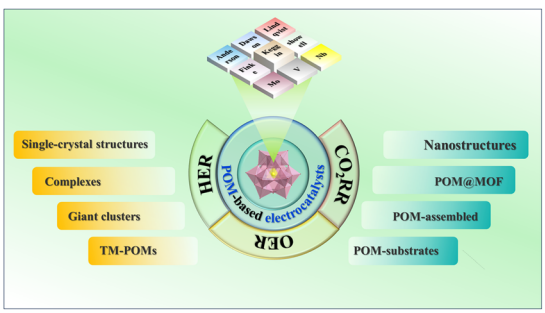
REVIEWS





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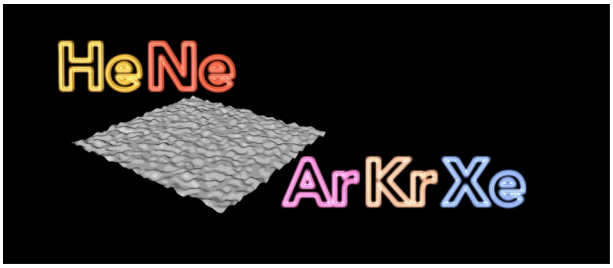

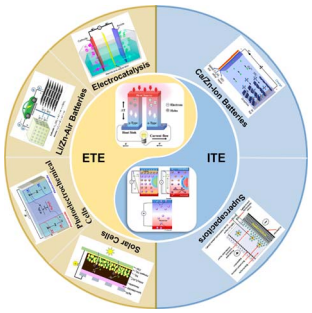

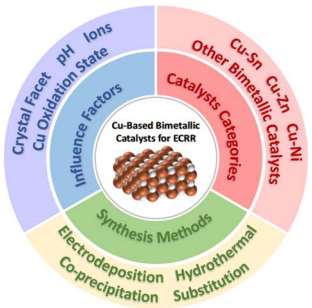

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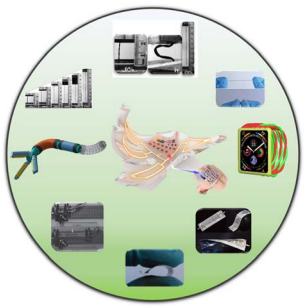

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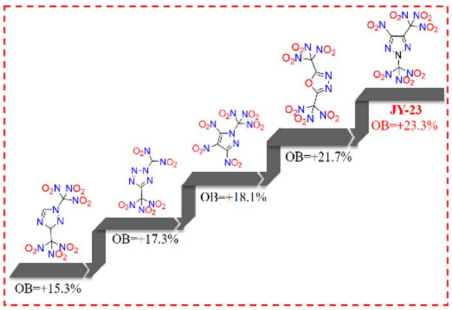
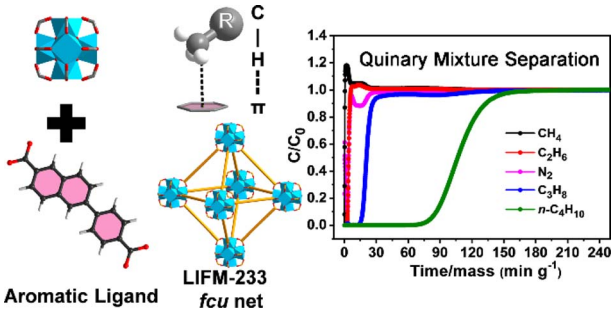


A green oxidizer based on 1,2,3-triazole with a high oxygen balance of +23.3%: a promising replacement of ammonium perchlorate in solid propellants

Pinxu Zhao, Long Chen, Qingzhong Zhang, Yifei Ling, Qiuhan Lin,* Haifeng Huang* and Jun Yang*



Introducing π-electron-rich aromatic rings into a robust Zr-MOF for efficient natural gas purification and C_3H_8/n-C_4H_{10} recovery

Liu-Li Meng, Xiao-Hong Xiong, Liang Zhang, Liang Song, Cheng-Xia Chen,* Zhang-Wen Wei* and Cheng-Yong Su*

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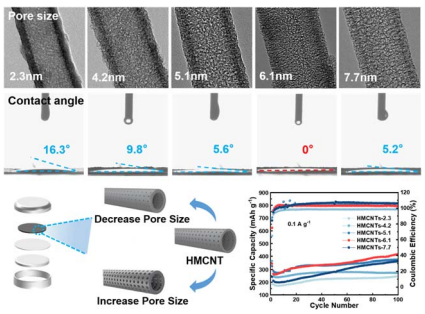
Low-coordinated Co–Mn diatomic sites derived from metal–organic framework nanorods promote electrocatalytic CO_2 reduction

Jiajing Pei, Guikai Zhang, Jiangwen Liao, Shufang Ji, Huan Huang, Ping Wang, Pengfei An,* Shengqi Chu* and Juncai Dong*



Pore-size tuning of hard carbon to optimize its wettability for efficient Na^+ storage

Lin Guo, Minyi Huang, Weicheng Liu, Hanqi Zhu, Yong Cheng and Ming-Sheng Wang*

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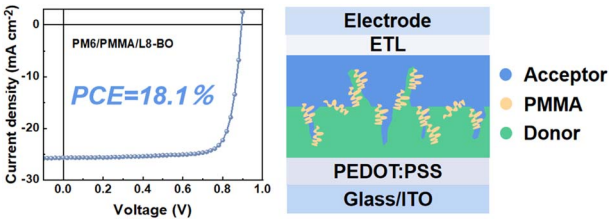

Multifunctional PMMA intermediate layer for sequentially deposited organic photovoltaics

Songtao Wei, Hongxiang Li,* Ruohao Wang, Top Archie Dela Peña, Hua Tang, Hailin Yu, Sandra P. Gonzalez Lopez, Jiayu Wang, Mingjie Li, Jiaying Wu, Guanghao Lu, Shirong Lu, Dewei Zhao, Cenqi Yan,* Frédéric Laquai and Pei Cheng*

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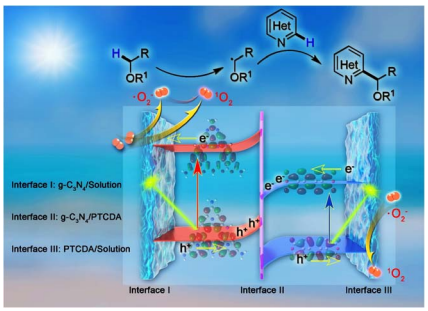

Metal-free polymeric and molecular disorder/order semiconductor heterojunctions for the visible-light photocatalytic Minisci reaction

Peihe Li,* Qingguang Li, Gelan Wang, Ye Lu, Limei Duan, Jie Bai, Sarina Sarina and Jinghai Liu*

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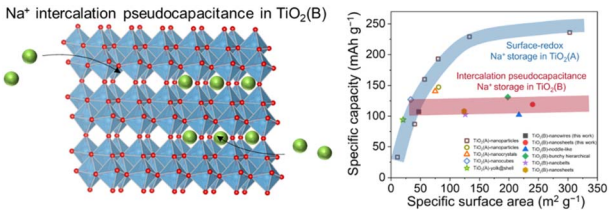

Intercalation pseudocapacitance of sodium-ion storage in TiO_2(B)

Xia Zou, Zerui Yan, Dafu Tang, Sicheng Fan, Dong-Liang Peng, Yalong Jiang* and Qiulong Wei*

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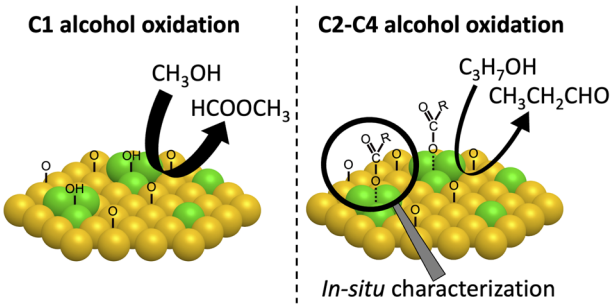

Selective oxidation of linear alcohols: the promotional effect of water and inhibiting effect of carboxylates over dilute PdAu catalysts

Jennifer D. Lee,* Amanda Filie, Leigh Wilson, Karin Nguyen, Tanya Shirman, Erjia Guan, Mathilde Luneau, Michael Aizenberg, Joanna Aizenberg, Robert J. Madix and Cynthia M. Friend*

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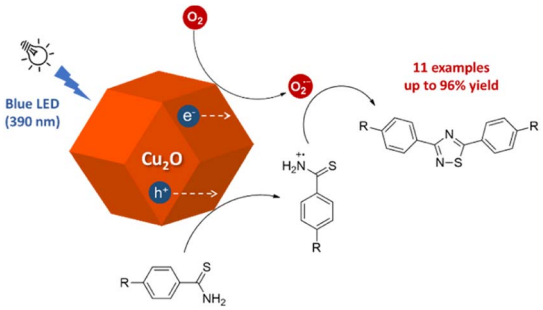

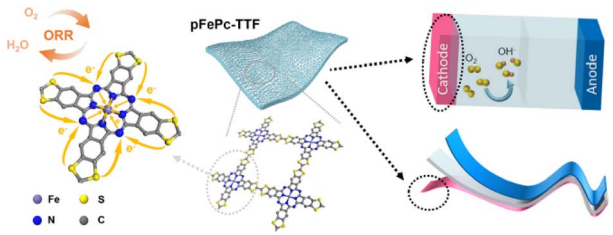

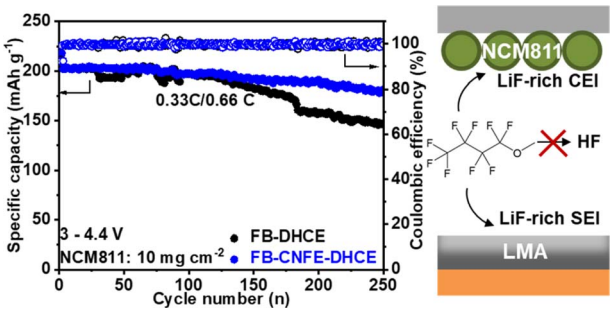

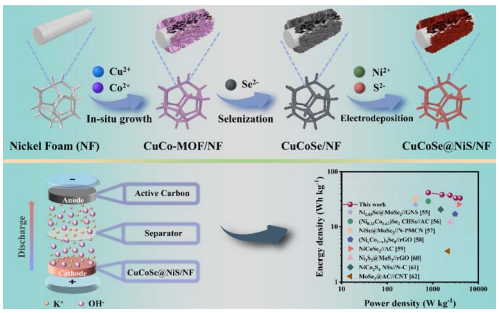

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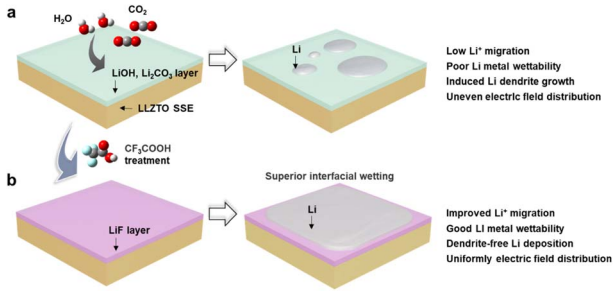
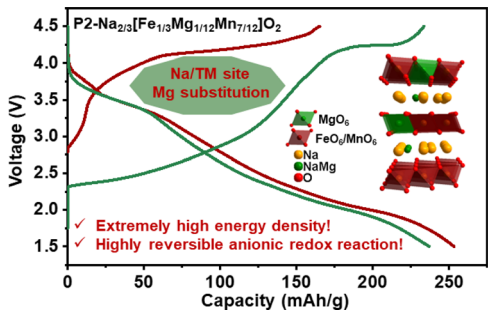


Garnet-based solid lithium metal batteries with ultralong lifespan enabled by solvent-free trifluoroacetic acid-induced interfacial engineering

Xia Hu, Yao Wang, Weiqian Guo, Yao Tian, Xiang Zhang, Feiyu Kang, Dong Zhou* and Baohua Li*

13841



An Na/TM-site Mg substituted P2-$Na_{2/3}[Fe_{1/3}Mg_{1/12}Mn_{7/12}]O_2$ cathode with extremely high capacity for sodium-ion batteries

Ming-Hui Cao,* Ren-Yan Li, Qing-Wen Sun, Miao Cui, Ze-Wei Guo, Lu Ma, Zulipiya Shadike* and Zheng-Wen Fu*

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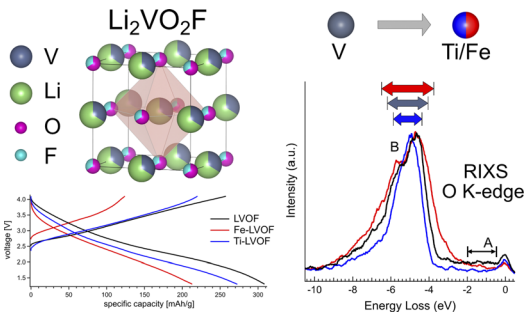

Effects of partial isovalent substitution of V with (Ti,Fe) on redox reactivity in Li_2VO_2F battery cathodes

Moritz Hirsbrunner, Ida Källquist, Jolla Kullgren, Håkan Rensmo, Maria Hahlin and Laurent C. Duda*

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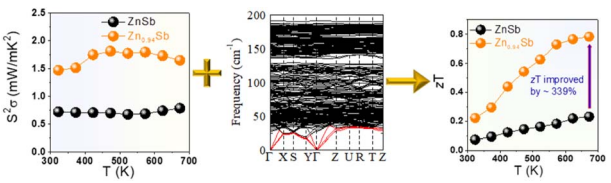

High thermoelectric performance in p-type ZnSb upon increasing Zn vacancies: an experimental and theoretical study

Jothilal Palraj, Muhammad Sajjad, Manojkumar Moorthy, Madhuvathani Saminathan, Bhuvanesh Srinivasan, Nirpendra Singh, Rajasekar Parasuraman, Shashikant P. Patole, Kiran Mangalampalli* and Suresh Perumal*

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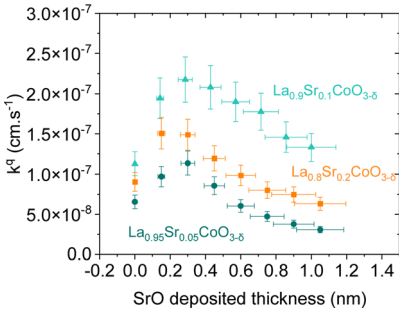

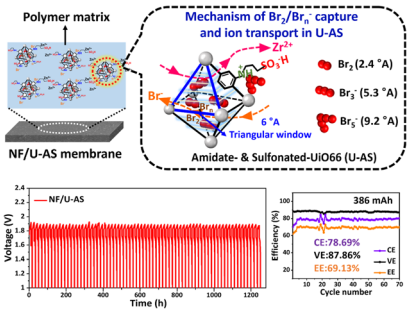

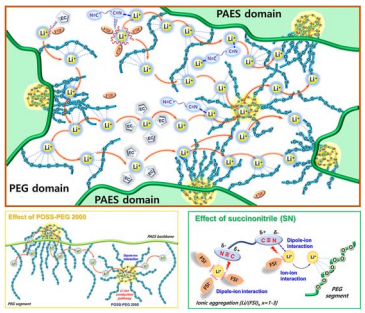

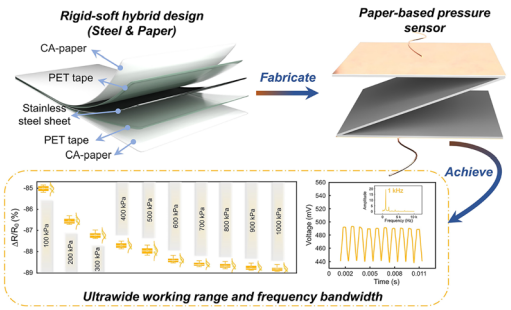

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