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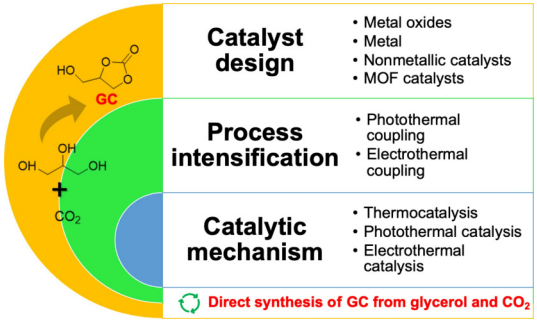
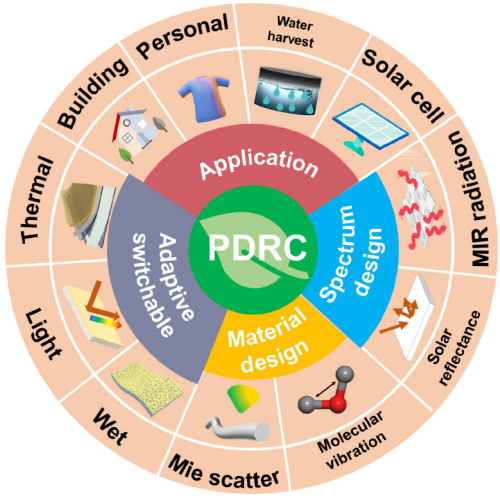
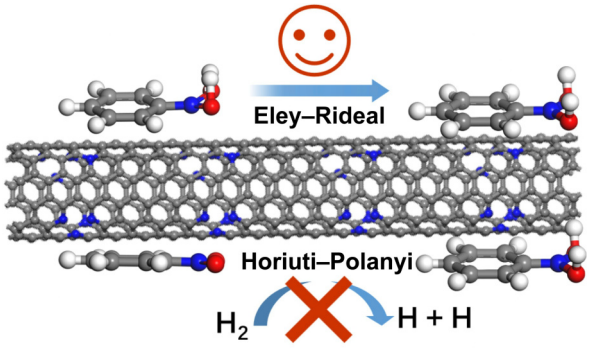
Reviews





Research articles



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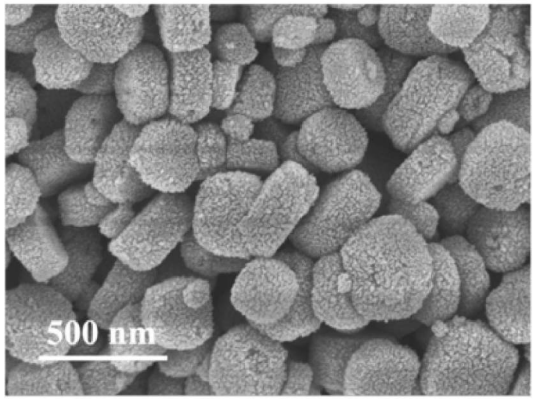
MOF-derived 3D hierarchical porous TiO_2@NPC@S as high-performance cathodes for Li-S batteries

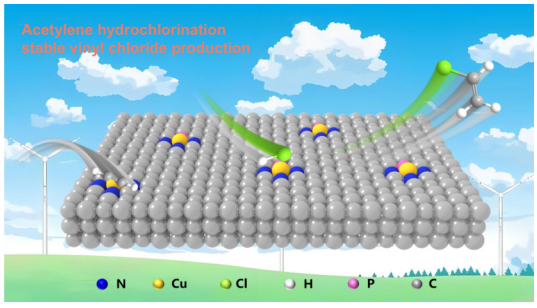


Peng Shi, Chengyao Zhu, Chuxin Chen, Ying Luo, Feng Sun, Xuan Du, Tao Zhou, and Guo Gao*

TiO_2@NPC@S (NPC = nanoporous carbon) composites were successfully developed as high-performance cathodes for lithium-sulfur batteries. The TiO_2@NPC@S cathodes demonstrate outstanding long-term cycling performance, and exhibit a high initial capacity of 1327.35 mAh/g at 0.5 C.

Carbon Future, **2025**, *2*, 9200035
https://doi.org/10.26599/CF.2025.9200035

Asymmetric Cu_1-N_3-P-C active centers for efficient acetylene hydrochlorination



Yuxiang Bao, Xiuhui Zheng, Chang Liu, Xing Lv, Yinming Guo, Baorui Li, Jianlin Cao, Yujie Gao, Juncong Yuan, Mengxin Wang, Zhe Ma, Yongxiao Tuo, Hao Yan, Lina Li*, Yibin Liu, Xiaobo Chen, Xiang Feng*, Chaohe Yang, and De Chen*

We used an innovative approach to integrate phosphorus into the nitrogen-doped carbon framework and introduced the single copper center to form the asymmetric structure Cu_1-N_3-P-C. As a result, we developed the novel copper-nitrogen-phosphorus-carbon (Cu-NPC) catalyst for the acetylene hydrochlorination.

Carbon Future, **2025**, *2*, 9200040
https://doi.org/10.26599/CF.2025.9200040

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