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### Introduction to the themed issue on frontiers of hydrogen energy and fuel cells

Lior Elbaz,\* Minhua Shao,\* Jianglan Shui\* and Carlo Santoro\*



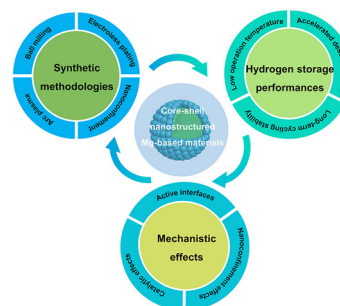
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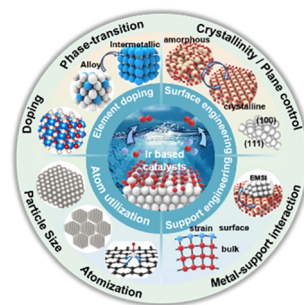


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Zijie Lin, Tanyuan Wang\* and Qing Li\*

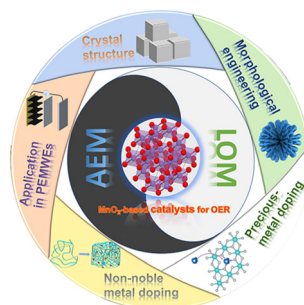


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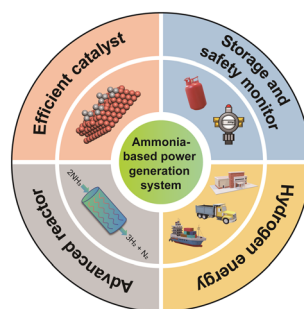


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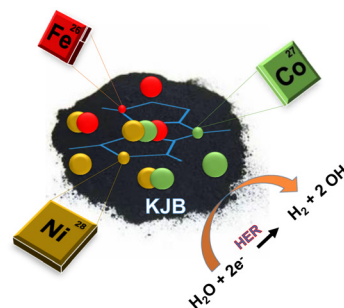


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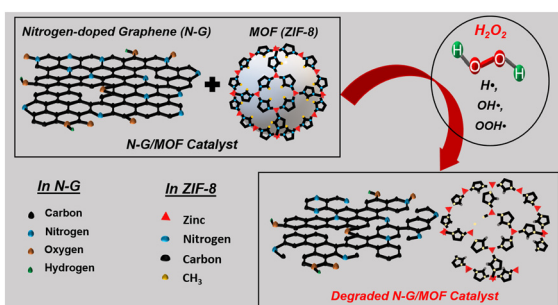
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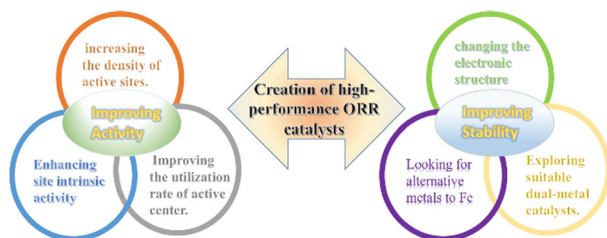


### Hierarchically microporous membranes for highly energy-efficient gas separations

Shuangjiang Luo, Tianliang Han, Can Wang, Ying Sun, Hongjun Zhang, Ruilan Guo\* and Suojing Zhang\*

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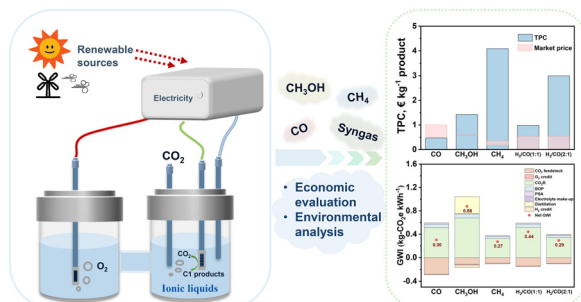
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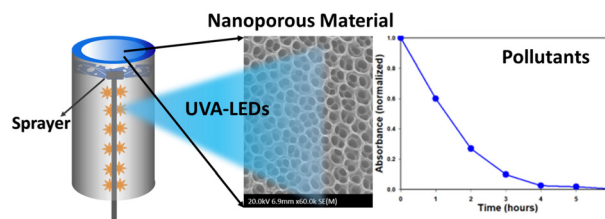
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