



# EES Catalysis

GOLD  
OPEN  
ACCESS

## Exceptional research on energy and environmental catalysis

### Open to everyone. Impactful for all

[rsc.li/EESCatalysis](https://rsc.li/EESCatalysis)

Fundamental questions  
Elemental answers

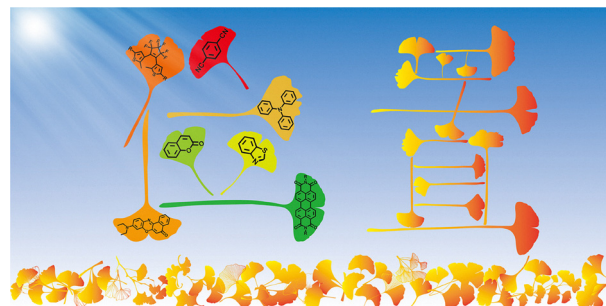


## REVIEWS

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### Molecular regioisomerism: an advantageous strategy for optimizing two-photon absorption performance of organic chromophores

Jian Qing, Jianpeng Liu, Zhisheng Gui, Xingchong Liu, Guangle Niu\* and Liang Xu\*

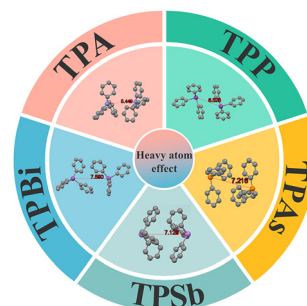


## RESEARCH ARTICLES

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### Improving the phosphorescence properties of doped materials through the heavy atom effect of the hosts

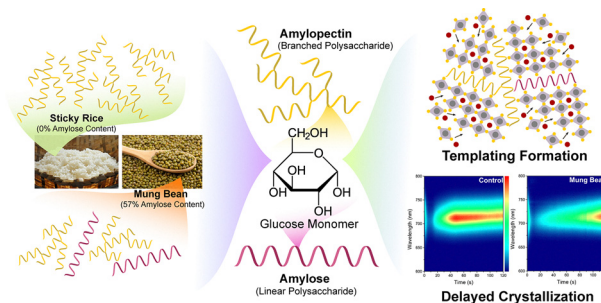
Xiyao Xu, Peng Chen, Yuping Xia, Wenbin Hui, Heqi Gao,\* Shihao Luo, Wenbo Dai, Junbo Zhong, Yunxiang Lei\* and Yan Chen\*



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### Carbohydrate-powered solar cells: how starches give perovskite extra energy

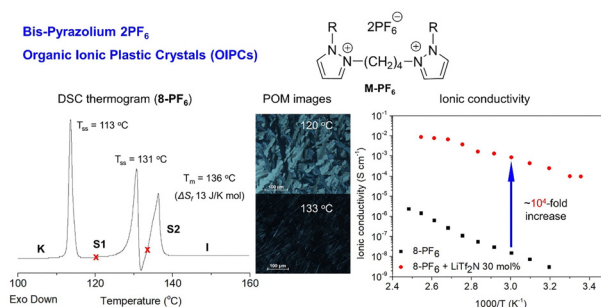
Chinnatip Harnmanasvate, Rico Meitzner, Yuxin Liu, Nopporn Rujisamphan, Eva Unger and Rongrong Checharoen\*



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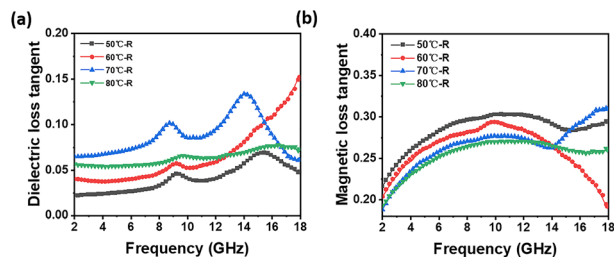
### Structural design and functional characterization of dicationic pyrazolium salts as organic ionic plastic crystals

Jong Chan Shin, Suyeon Kim, Eunji Yun and Minjae Lee\*



## RESEARCH ARTICLES

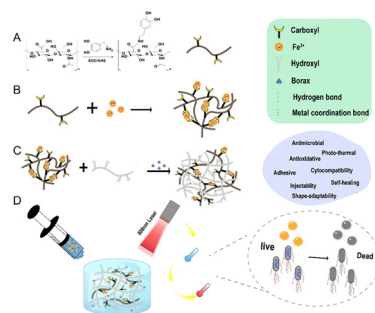
100



### Tri-layer $\text{Co@Co}_x\text{Fe}_{1-x}\text{@Fe}_3\text{O}_4$ thorny core-shell composite particles and their electromagnetic absorption properties

Hong Li, Hongyang Li,\* Ran Wang, Shentao Zeng, Ruiling Xie, Cui Luo and Ying Liu

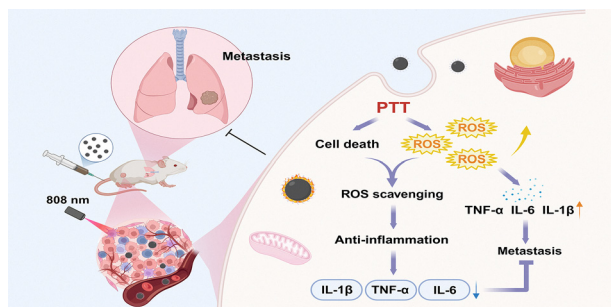
112



### Self-healing photothermal antibacterial hydrogels constructed through multiple dynamic chemical bonds

Jingrui Chang, Xinyu Wang, Xuejiao Ma and Bo Lu\*

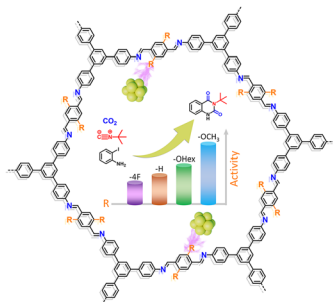
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### Iridium nanoparticles with anti-inflammatory activity for improved tumor photothermal therapy

Xianghua Yang, Siwen Yi, Meiling Liu, Linlin Huo, Mingya Tan, Jiayi Zhao, Taotao Chu and Zhenghuan Zhao\*

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### Pore-wall functionalization of covalent organic framework palladium catalysts boosts the multicomponent reaction of $\text{CO}_2$

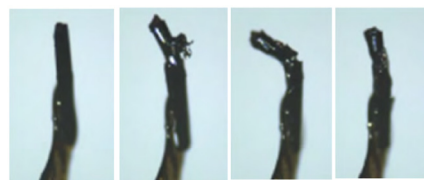
Shiyuan Wei, Benling Yu, Jiawei Li,\* Jianhui Zhu, Yaqi Li and Jianhan Huang\*



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## Martensitic phase transition and stimuli responsive effects in thermosalient cocrystal of 9,10-dimethylantracene with F<sub>2</sub>TCNQ

Kamil Ivshin, Anton Fedonin, Kirill Metlushka, Dmitry Zakharychev, Nadir Garif'yanov, Andrey Kamashev, Airat Kiiamov, Anastasia Efimova, Marco Naumann, Stanislav Avdoshenko, Sandra Schiemenz, Alexey A. Popov, Vladislav Kataev, Martin Knupfer and Olga Kataeva\*



Low-T Phase  $\longleftrightarrow$  High-T Phase  
Self-healing, shape recovery,  
thermosalient effects stemming from  
reversible SCSC phase transition

