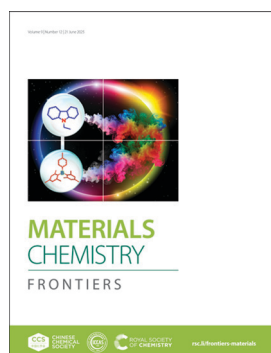


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#### Cover

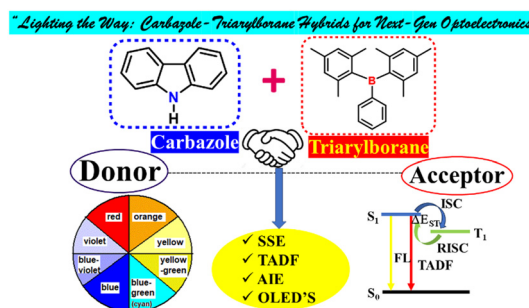
See Afrin A and Chinna Ayya Swamy P, pp. 1794–1820.  
Image reproduced by permission of Chinna Ayya Swamy P from *Mater. Chem. Front.*, 2025, 9, 1794.

### REVIEWS

1794

#### Two decades of carbazole–triarylborane hybrids in optoelectronics

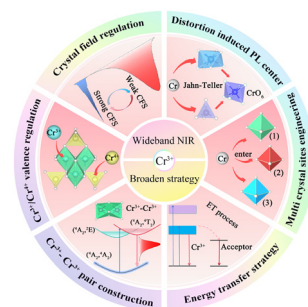
Afrin A and Chinna Ayya Swamy P\*



1821

#### Strategies for broadening the emission spectra of Cr<sup>3+</sup>-doped near-infrared emitting phosphors

Changheng Chen, Jiwen Chang, Renze Chen, Ruibo Gao, Yiqing Wang, Kexin Zhu, Jinmeng Xiang\* and Chongfeng Guo\*



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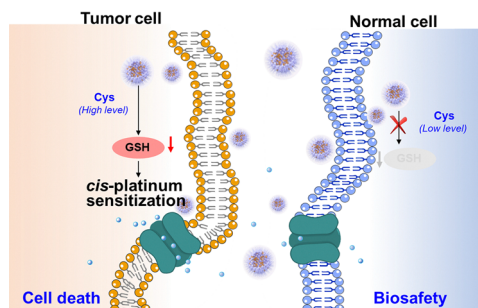


## RESEARCH ARTICLES

1839

### Cysteine-responsive, cyano-functionalized acenaphthopyrazine derivative for tumor microenvironment modulation-based chemotherapy sensitization and side effect reduction

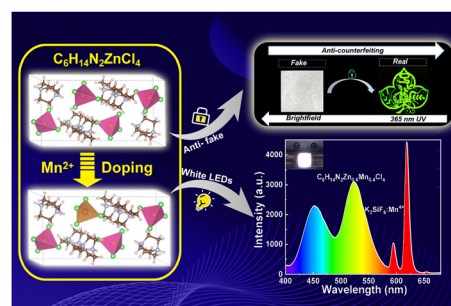
Hanyi Gao, Yiliang Qin, Jiayi Li, Shuhong Xiong, Rong Sun, Xia He, Yaxin Wu, Ying Tian,\* Yi Yuan\* and Rong Hu\*



1850

### High-performance green emitting $\text{Mn}^{2+}$ -doped 0D OIHHM crystals for white LEDs and anti-counterfeiting applications

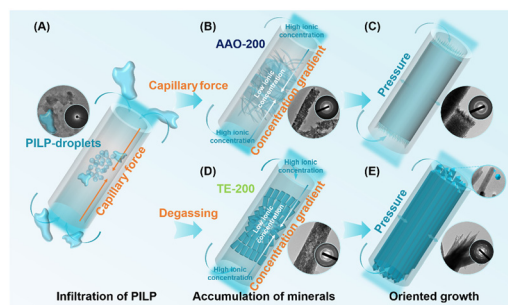
Qianrong Jin, Yuexiao Pan,\* Yali Tang, Yingnuo Chen, Suqin Chen and Jun Zou\*



1857

### Capillary force and concentration gradient promote the bioprocessing-inspired formation of ultralong fluorapatite nanorods under confinement

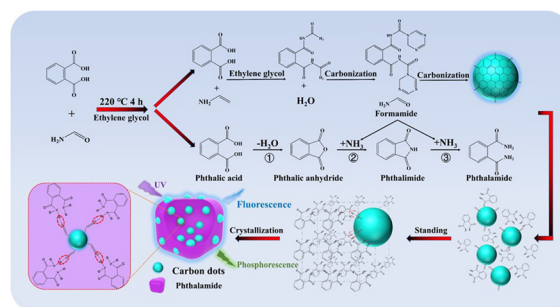
Yonglang Yu, Ping Yuan, Zhengyi Fu and Zhaoyong Zou\*



1870

### Mechanism of *in situ* confining carbon dots in phthalamide crystal for room-temperature phosphorescence

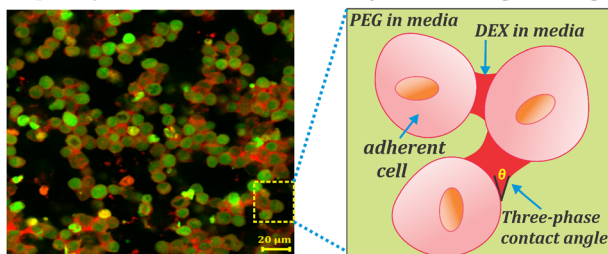
Xingmei Li, Haixin Kang, Yingying Zhao, Tong Chen, Jingxia Zheng,\* Lin Chen, Bin Liu, Yongzhen Yang\* and Xuguang Liu\*



## RESEARCH ARTICLES

1882

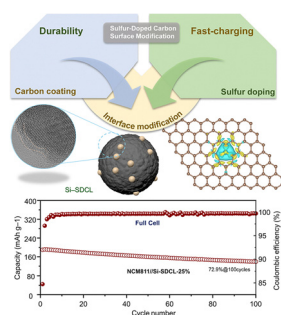
## Capillary structured cell networks for tissue engineering



## Fabrication of 3D structured human cell networks using capillary cell suspensions from aqueous two-phase systems

Amro K. F. Dyab and Vesselin N. Paunov\*

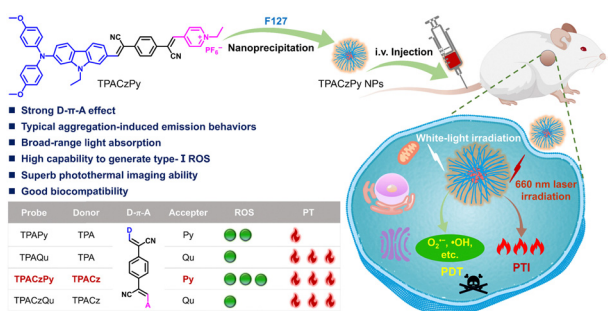
1896



## Sulfur-doped carbon interface modification for high-performance silicon anodes in lithium-ion batteries

Jingyuan Li, Shuqi Wang, Fei Wang,\* Zhendong Liu, Zhuorui Tang, Weidong Zhang, Dai Dang,\* Chunyang Pan, Quanbing Liu and Chengzhi Zhang\*

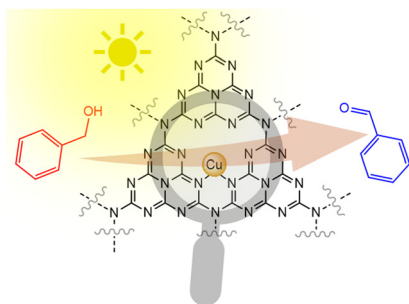
1906



## Molecular engineering-facilitated AIE-active type-I photosensitizers for photothermal imaging-guided photodynamic therapy

Xiufeng Li, Shasha Zhang, Pengli Gu, Xinyi Zhang and Ju Mei\*

1917



## The role of single copper atoms in enhancing the photocatalytic activity of carbon nitride for selective oxidation

Hanggara Sudrajat,\* Jakkapon Phanhuwongpakdee and Juan Carlos Colmenares\*



## RESEARCH ARTICLES

1933

**Deposition of N-doped graphene and its mechanism study *via in situ* mass spectrometry**

Limin Wang, Xi Wu, Tao Cheng, Han Xue, Bernd Abel, Jia Li,\* Jianfeng Li,\* Liying Ma, Jia Ding, Wenqi Wang, Shaopeng Fu, Yong Hou, Kailang Wang, La Zhu and Xubin Lu\*

