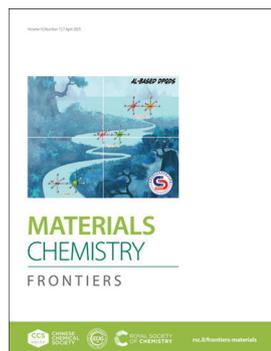


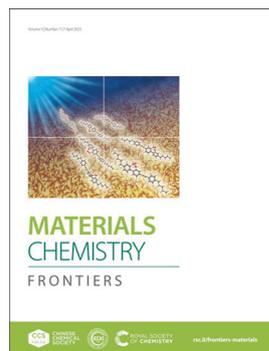
### IN THIS ISSUE

ISSN 2052–1537 CODEN MCFAC5 9(7) 1069–1206 (2025)



#### Cover

See Chuanlang Zhan *et al.*, pp. 1118–1126. Image reproduced by permission of Liyuan Zhang from *Mater. Chem. Front.*, 2025, 9, 1118.



#### Inside cover

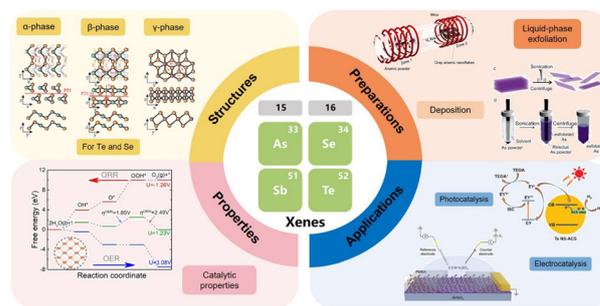
See Gen-ichi Konishi *et al.*, pp. 1127–1138. Image reproduced by permission of Gen-ichi Konishi from *Mater. Chem. Front.*, 2025, 9, 1127.

### REVIEWS

1075

#### Emerging 15–16 group Xenes: structures, properties, preparation methods, and their catalytic applications

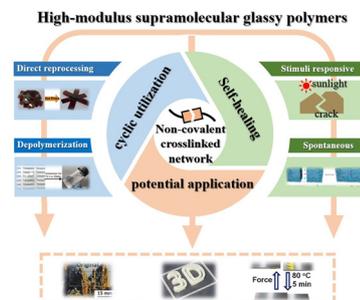
Cong Ma, Kai Bao, Junlei Qi, Wenbin Wang, Jingkun Wu, Ruijie Li, Yu Lin, Lingzhi Wang, Zhuangzhuang Yin, Zhixiang Tao, Chengxuan Ke, Zongxiao Wu, Yingxia Liu\* and Qiyuan He\*



1101

#### High-modulus supramolecular glassy polymers: a review

Yin Wang, Zilong Cao, Tong Liu, Lin Wang, Zhongbao Fu, Yujuan Li, Jianhua Xu\* and Jiajun Fu\*



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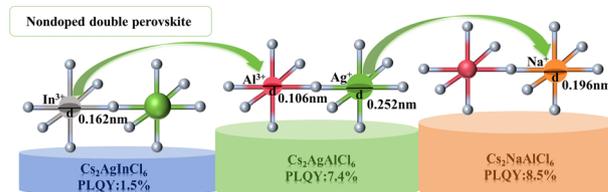
Fundamental questions  
Elemental answers

## RESEARCH ARTICLES

1118

## Synthesis and luminescence of Al based double perovskite quantum dots

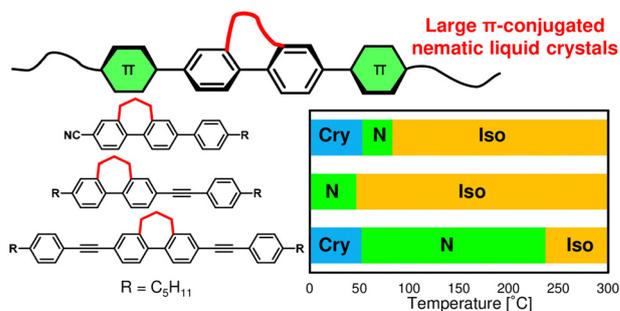
Liyuan Zhang, Chasina Wang and Chuanlang Zhan\*



1127

Innovative molecular design of bridged biphenyls for calamitic nematic liquid crystals with extensive  $\pi$ -conjugated mesogens

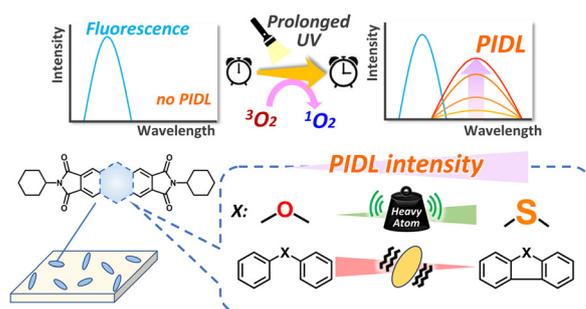
Yoshimichi Shimomura, Yuuto Iida, Eiji Tsurumaki and Gen-ichi Konishi\*



1139

## Prolonged irradiation-induced delayed luminescence of PMMA-dispersed imide compounds containing ether- and thioether-bridged cores

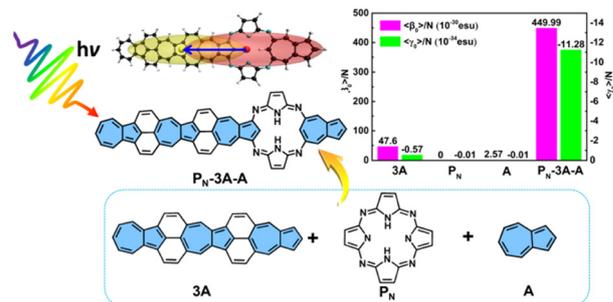
Marina Doi, Haonan Liu and Shinji Ando\*



1149

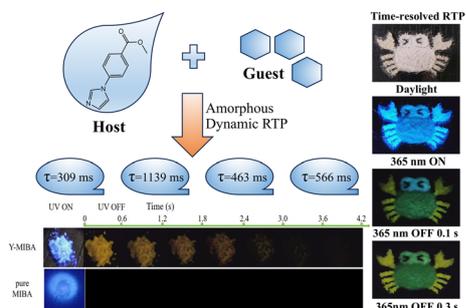
## Megamerger of porphyrin (phthalocyanine) with azulene-based graphene nanosheets for high-performance nonlinear optical materials

Ya Qing Zhang, Cui-Cui Yang,\* Li Li and Wei Quan Tian\*



## RESEARCH ARTICLES

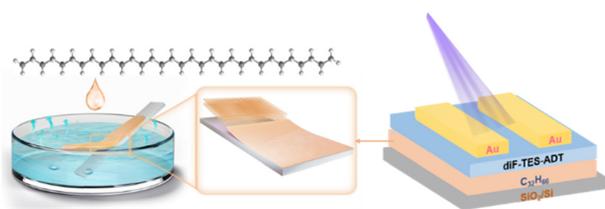
1166



### Ultra-long organic RTP host–guest doped systems based on pure 4-(1*H*-imidazole-1-yl)methyl benzoate as versatile hosts

Xiaoxiao Jiao, Wenlei Zhang, Jieru Zhi, Yingxin Wang, Mengyao Wang, Zhongyi Liu\* and Jinpeng Li\*

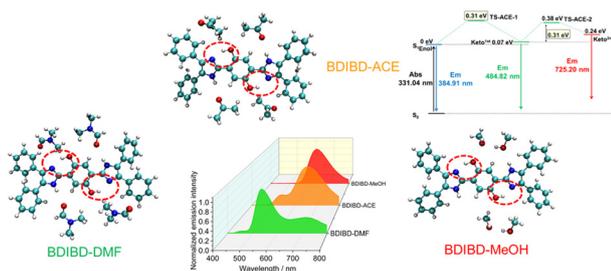
1174



### Promoting phototransistor performance by utilizing solution epitaxy templated organic semiconductor films

Zhifang Wang, Yingying Zhang, Di Xue, Yandong Wang,\* Zi Wang,\* Lifeng Chi and Lizhen Huang\*

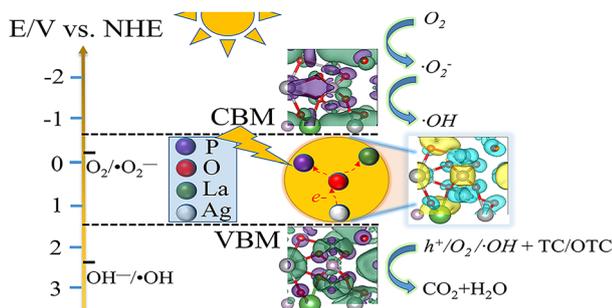
1181



### Conformational regulation to realize modifiable ESIPT (excited-state intramolecular proton transfer) through intermolecular interactions

Shao-Zhe Yi, Bao-Ning Li, Wen He and Mei Pan\*

1189



### Alteration of internal electron migration pathways in La-doped $\text{Ag}_3\text{PO}_4$ for improved photocatalytic stability

Bing Wang\*, Yao Liu, Hong Hao, YuZhen Zhao, ZeMin He, WenQi Song, EnZhou Liu, Zhuo Li\* and ZongCheng Miao\*

