## Chem Soc Rev

## Chemical Society Reviews

## rsc.li/chem-soc-rev

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

## IN THIS ISSUE

ISSN 0306-0012 CODEN CSRVBR 54(17) 7743-8138 (2025)



#### Cover

See Luca Prodi, Pierre Picchetti et al., pp. 7769–7869. Image reproduced by permission of Pierre Picchetti from Chem. Soc. Rev., 2025, **54**, 7769.



### Inside cover

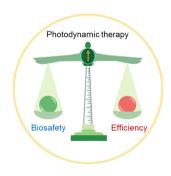
See Xingshu Li, Hua Zhang, Juyoung Yoon et al., pp. 7749–7768. Image reproduced by permission of Juyoung Yoon from Chem. Soc. Rev., 2025, 54, 7749.

## TUTORIAL REVIEW

## 7749

# Enhancing biosafety in photodynamic therapy: progress and perspectives

Yuan-Yuan Zhao, Lu Lu, Hyunsun Jeong, Heejeong Kim, Xingshu Li,\* Hua Zhang\* and Juyoung Yoon\*

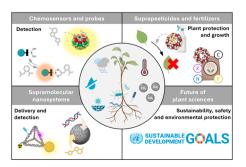


### **REVIEW ARTICLES**

## 7769

# Supramolecular chemistry for optical detection and delivery applications in living plants

Maria Vittoria Balli, Frank Biedermann, Luca Prodi\* and Pierre Picchetti\*





GOLD OPEN ACCESS

# EES Solar

Exceptional research on solar energy and photovoltaics

Part of the EES family

Join Publish with us in rsc.li/EESSolar

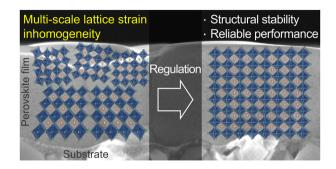
Registered charity number: 207890

## **REVIEW ARTICLES**

## 7870

Lattice strain inhomogeneity in halide perovskite films: its origins and regulations

Yun-Kyeong Hong, Yu-Na Lee and Hui-Seon Kim\*



## 7913

Combining biocatalytic and radical retrosynthesis for efficient chemoenzymatic synthesis of natural products

Hans Renata

## 7933

Tailoring Cu-based small-pore zeolites towards  $NH_3$ -SCR for  $NO_x$  abatement

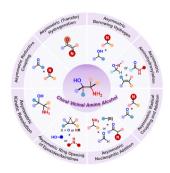
Jinfeng Han, Dan Li and Jihong Yu\*



## 7966

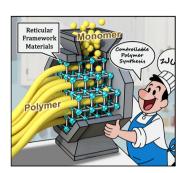
Recent advances in catalytic enantioselective synthesis of vicinal amino alcohols

Xu Yan, Wei Feng, Jiong Xu Ng, Jiaxin Li, Ying Liu, Bo Zhang,\* Pan-Lin Shao\* and Yu Zhao\*



## **REVIEW ARTICLES**

8019



## Reticular framework materials as versatile platforms for controllable polymer synthesis

Zhiwei Xing, Sai Wang\* and Qi Sun\*

8071



## Biomimetic design for zinc-based energy storage devices: principles, challenges and opportunities

Jian Song, Qian Zhang,\* Guangjie Yang, Kai Qi, Xue Li,\* Zhenlu Liu, Haoqi Yang,\* Ho Seok Park, Shaohua Jiang, Jingquan Han, Shuijian He\* and Bao Yu Xia\*