

# Chem Soc Rev

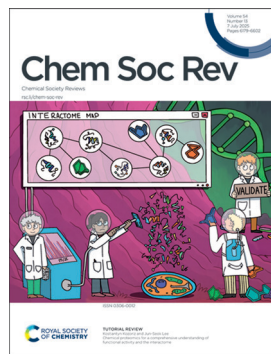
Chemical Society Reviews

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ISSN 0306-0012 CODEN CSRVBR 54(13) 6179-6602 (2025)



### Cover

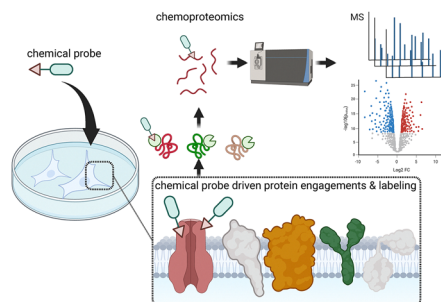
See Kostiantyn Kozoriz and Jun-Seok Lee, pp. 6186–6207. Image reproduced by permission of Kostiantyn Kozoriz and Jun-Seok Lee from *Chem. Soc. Rev.*, 2025, 54, 6186.

## TUTORIAL REVIEW

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### Chemical proteomics for a comprehensive understanding of functional activity and the interactome

Kostiantyn Kozoriz and Jun-Seok Lee\*

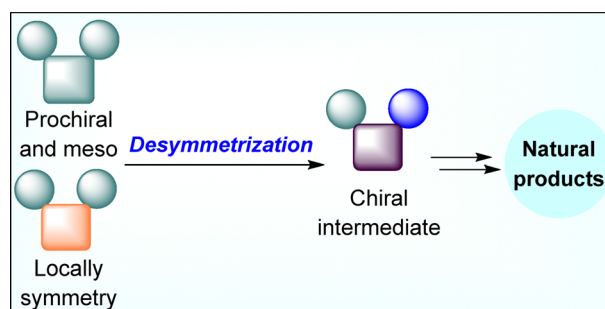


## REVIEW ARTICLES

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### Desymmetrization strategy in natural product total synthesis

Haichao Liu,\* Kai Tang, Hao Zeng, Lijun Chen, Hong Liang\* and Yanxing Jia\*



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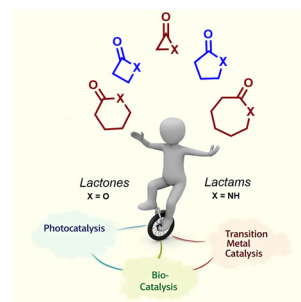
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### Synthesis of lactones and lactams via C(sp<sup>3</sup>)-H bond functionalization

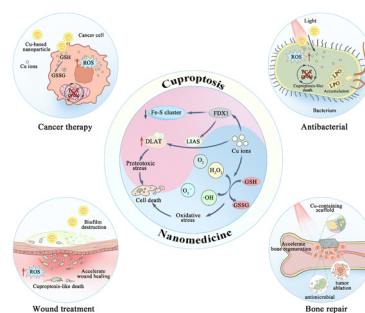
Egambaram Premkumar, Ramdas Sreedharan, Premananda Ghosh, Tanay Pal, Debabrata Maiti\* and Thirumanavelan Gandhi\*



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### Cuproptosis: mechanisms and nanotherapeutic strategies in cancer and beyond

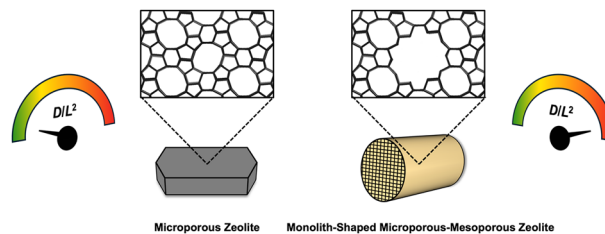
Lijie Mao, Ji Lu, Xinyu Wen, Zhiyi Song, Cai Sun, Yuanru Zhao, Fang Huang, Si Chen, Dongyang Jiang, Wenliang Che, Cheng Zhong, Chen Yu, Ke Li,\* Xiangyu Lu\* and Jianlin Shi\*



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### Chemical engineering of zeolites: alleviating transport limitations through hierarchical design and shaping

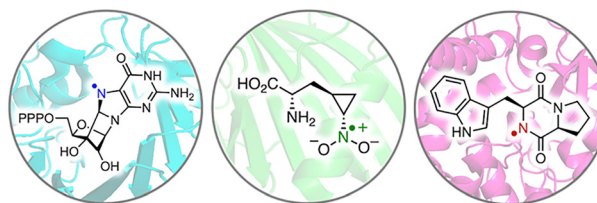
Nibras Hijazi, Anastasiya Bavykina, Irina Yarulina, Tuiana Shoinkhorova, Enrique V. Ramos-Fernandez and Jorge Gascon\*



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### Nitrogen-centered radicals driving unusual enzyme reactions in biosynthetic pathways

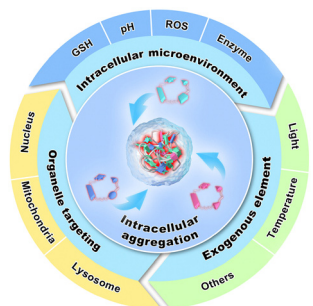
Richiro Ushimaru\* and Ikuro Abe\*



*N*-centered radicals in enzyme reactions



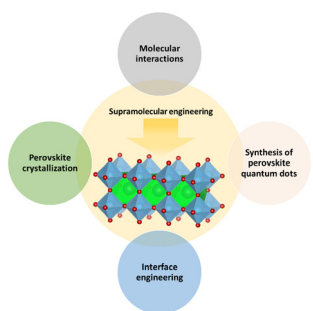
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### Intracellular aggregation of exogenous molecules for biomedical applications

Da-Yong Hou, Haoran Wang,\* Yue-Ze Wang, Dong-Bing Cheng,\* Ben Zhong Tang\* and Wanhai Xu\*

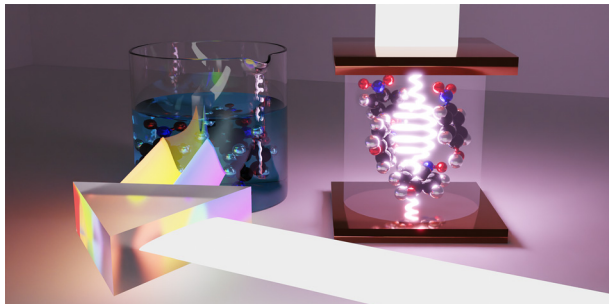
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### Supramolecular engineering in hybrid perovskite optoelectronics

Tzu-Sen Su, Anurag Krishna, Chenxu Zhao, Junhao Chu and Hong Zhang\*

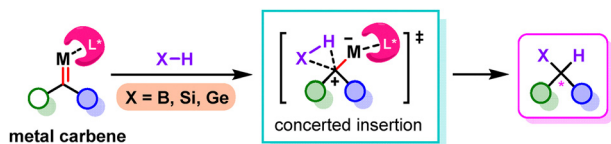
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### When do molecular polaritons behave like optical filters?

Kai Schwennicke, Arghadip Koner, Juan B. Pérez-Sánchez, Wei Xiong, Noel C. Giebink, Marissa L. Weichman and Joel Yuen-Zhou\*

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### Recent advances in catalytic asymmetric metalloid–hydrogen bond insertion of transition-metal carbenes

Shuyue Zhang and Ming-Hua Xu\*

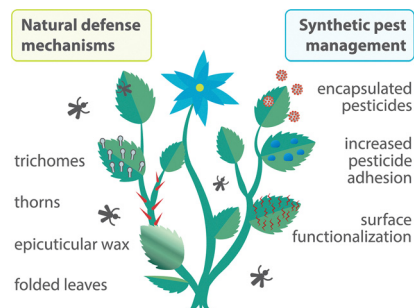


## REVIEW ARTICLES

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**Turning over a new leaf: innovative pest control from a materials science perspective**

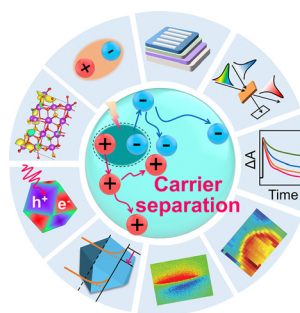
Abinaya Arunachalam, Maria Perraki, Bram Knegt, Mirka Macel, Dagmar Voigt and Marleen Kamperman\*



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**Transfer dynamics of photo-generated carriers in catalysis**

Jun Wang, Wanru Liao, Yao Tan, Olivier Henrotte, Yicui Kang, Kang Liu, Junwei Fu, Zhang Lin, Liyuan Chai, Emiliano Cortes\* and Min Liu\*



## CORRECTIONS

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**Correction: Decoding recombination dynamics in perovskite solar cells: an in-depth critical review**

Ramkrishna Das Adhikari, Mayur Jagdishbhai Patel, Himangshu Baishya, Deepak Yadav, Manab Kalita, Mizanur Alam and Parameswar Krishnan Iyer\*

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**Correction: Unified approaches in transition metal catalyzed C(sp<sup>3</sup>)-H functionalization: recent advances and mechanistic aspects**

Jagrit Grover, Amal Tom Sebastian, Siddhartha Maiti, Alex C. Bissember\* and Debabrata Maiti\*

