

# Chem Soc Rev

Chemical Society Reviews

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## IN THIS ISSUE

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Bo Peng, Yu Chen *et al.*,  
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### Inside cover

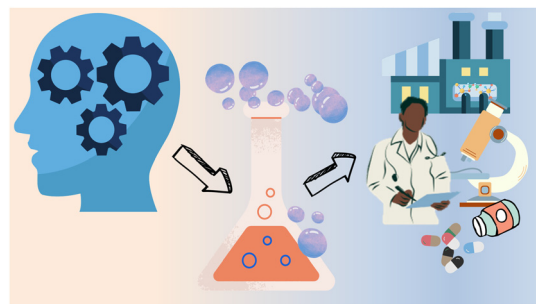
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pp. 7036–7070.  
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## TUTORIAL REVIEWS

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### Tools to enable the study and translation of supramolecular amphiphiles

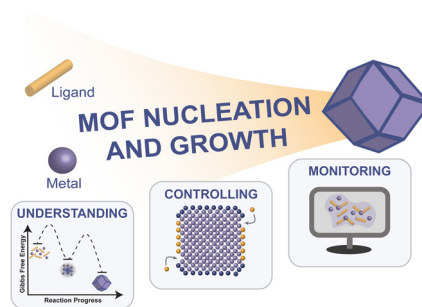
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### Understanding and controlling the nucleation and growth of metal–organic frameworks

Brooke P. Carpenter, A. Rain Talosig, Ben Rose,  
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Chemical Society Reviews

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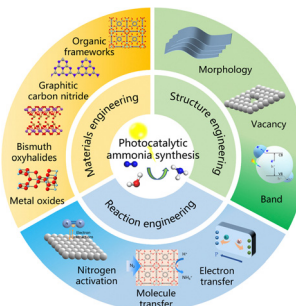


## TUTORIAL REVIEWS

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## Engineering photocatalytic ammonia synthesis

Yonghui Shi, Zhanfeng Zhao, Dong Yang,\* Jiangdan Tan, Xin Xin, Yongqi Liu and Zhongyi Jiang\*

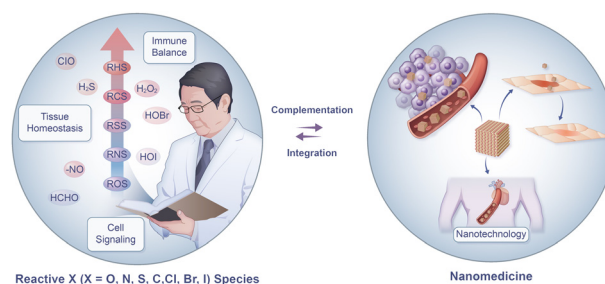


## REVIEW ARTICLES

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## Reactive X (where X = O, N, S, C, Cl, Br, and I) species nanomedicine

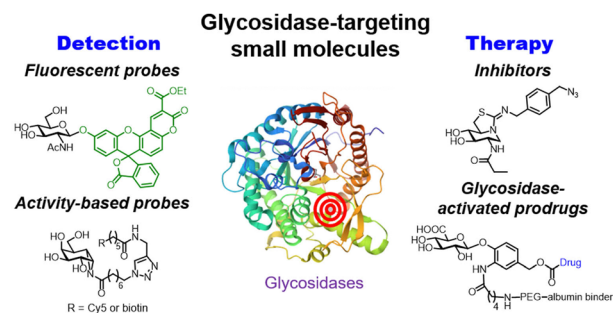
Keyi Wang, Weipu Mao, Xinran Song, Ming Chen, Wei Feng,\* Bo Peng\* and Yu Chen\*



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## Glycosidase-targeting small molecules for biological and therapeutic applications

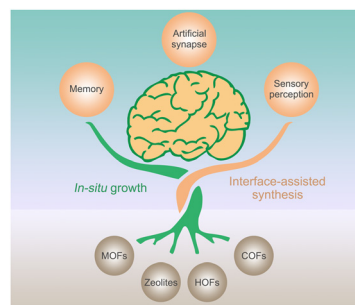
Yujun Kim, Hui Li, Joohee Choi, Jihyeon Boo, Hyemi Jo, Ji Young Hyun\* and Injae Shin\*



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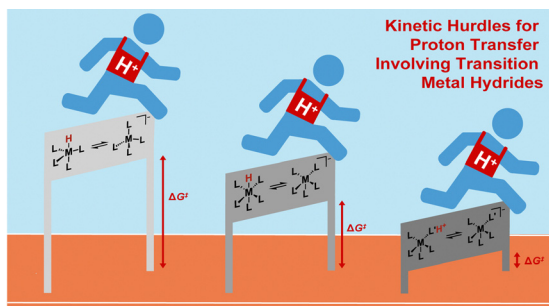
## Porous crystalline materials for memories and neuromorphic computing systems

Guanglong Ding, JiYu Zhao, Kui Zhou, Qi Zheng, Su-Ting Han, Xiaojun Peng and Ye Zhou\*



## REVIEW ARTICLES

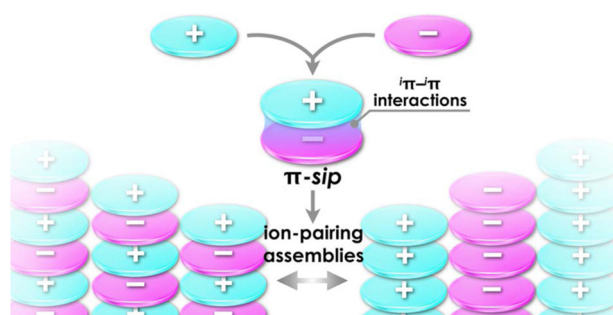
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### Proton transfer kinetics of transition metal hydride complexes and implications for fuel-forming reactions

Charlotte L. Montgomery, Jaruwan Amtawong, Aldo M. Jordan, Daniel A. Kurtz\* and Jillian L. Dempsey\*

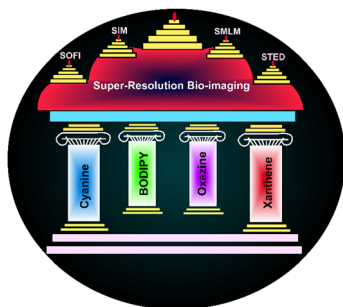
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### π-Electronic ion pairs: building blocks for supramolecular nanoarchitectonics via π-π interactions

Yohei Haketa, Kazuhisa Yamasumi and Hiromitsu Maeda\*

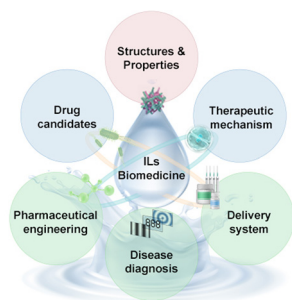
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### Xanthene, cyanine, oxazine and BODIPY: the four pillars of the fluorophore empire for super-resolution bioimaging

Soham Samanta, Kaitao Lai, Feihu Wu, Yingchao Liu, Songtao Cai, Xusan Yang, Junle Qu\* and Zhigang Yang\*

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### Ionic liquids revolutionizing biomedicine: recent advances and emerging opportunities

Yanhui Hu, Yuyuan Xing, Hua Yue, Tong Chen, Yanyan Diao,\* Wei Wei\* and Suojing Zhang\*



## CORRECTION

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**Correction: Reactive oxygen nanobiocatalysts: activity-mechanism disclosures, catalytic center evolutions, and changing states**

Sujiao Cao, Yanping Long, Sutong Xiao, Yuting Deng, Lang Ma, Mohsen Adeli, Li Qiu,\* Chong Cheng\* and Changsheng Zhao\*

