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Chemical Society Reviews

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ISSN 0306-0012 CODEN CSRVBR 52(20) 6885-7298 (2023)



Cover

See Wei Feng, Bo Peng, Yu Chen *et al.*, pp. 6957–7035. Image reproduced by permission of Bo Peng and Yu Chen from *Chem. Soc. Rev.*, 2023, 52, 6957.



Inside cover

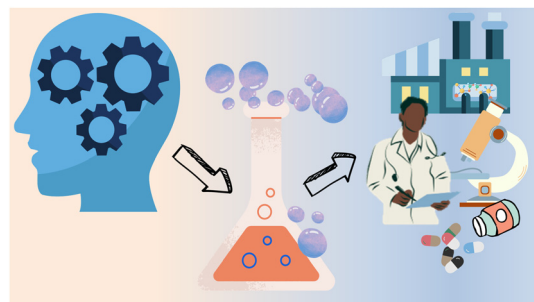
See Injae Shin, Ji Young Hyun *et al.*, pp. 7036–7070. Image reproduced by permission of Injae Shin from *Chem. Soc. Rev.*, 2023, 52, 7036.

TUTORIAL REVIEWS

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Tools to enable the study and translation of supramolecular amphiphiles

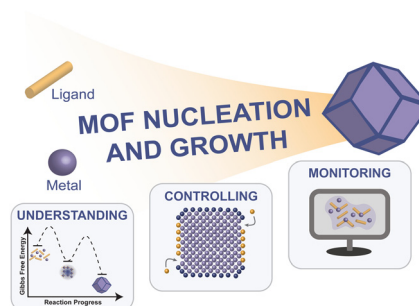
Thomas Allam, Dominick E. Balderston, Mandeep K. Chahal, Kira L. F. Hilton, Charlotte K. Hind, Olivia B. Keers, Rebecca J. Lilley, Chandni Manwani, Alix Overton, Precious I. A. Popoola, Lisa R. Thompson, Lisa J. White and Jennifer R. Hiscock*



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

Brooke P. Carpenter, A. Rain Talosig, Ben Rose, Giuseppe Di Palma and Joseph P. Patterson*



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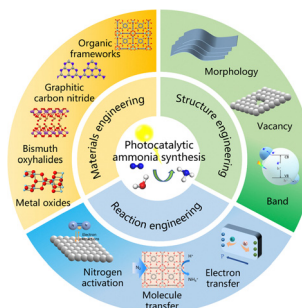


TUTORIAL REVIEWS

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Engineering photocatalytic ammonia synthesis

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

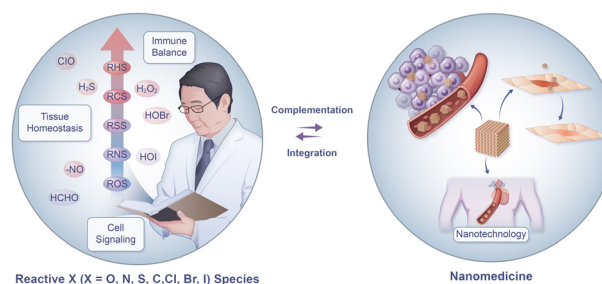


REVIEW ARTICLES

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

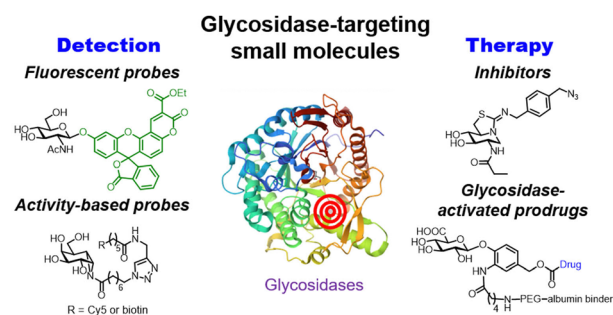
Keyi Wang, Weipu Mao, Xinran Song, Ming Chen, Wei Feng,* Bo Peng* and Yu Chen*



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Glycosidase-targeting small molecules for biological and therapeutic applications

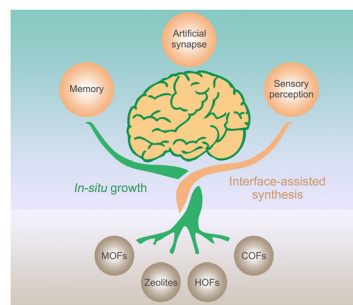
Yujun Kim, Hui Li, Joohee Choi, Jihyeon Boo, Hyemi Jo, Ji Young Hyun* and Injae Shin*



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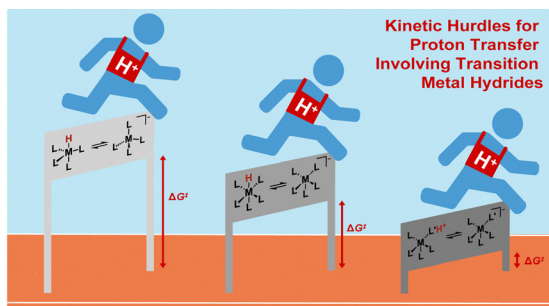
Porous crystalline materials for memories and neuromorphic computing systems

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



REVIEW ARTICLES

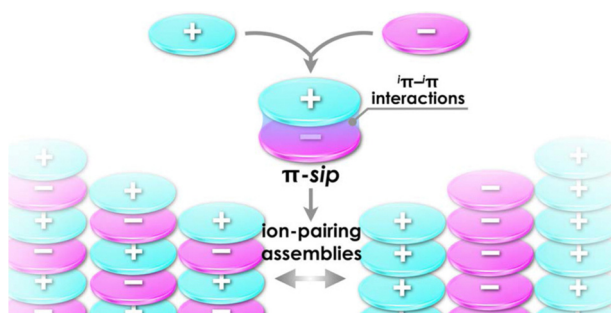
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Proton transfer kinetics of transition metal hydride complexes and implications for fuel-forming reactions

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

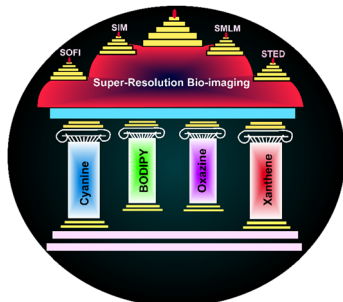
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π -Electronic ion pairs: building blocks for supramolecular nanoarchitectonics via π - π interactions

Yohei Haketa, Kazuhisa Yamasumi and Hiromitsu Maeda*

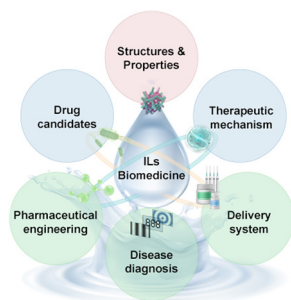
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Xanthene, cyanine, oxazine and BODIPY: the four pillars of the fluorophore empire for super-resolution bioimaging

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 Suojiang 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*

