

# Chem Soc Rev

Chemical Society Reviews

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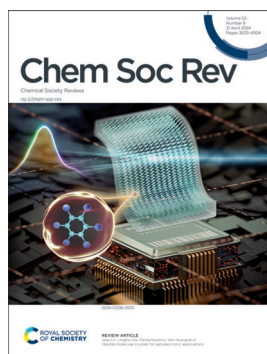
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ISSN 0306-0012 CODEN CSRVBR 53(8) 3633-4304 (2024)



### Cover

See Yangheng Zhang, Wenrong Yang, Fuhua Yan *et al.*, pp. 3656–3686. Image reproduced by permission of Shuang Zhang and Na Kong from *Chem. Soc. Rev.*, 2024, 53, 3656.



### Inside cover

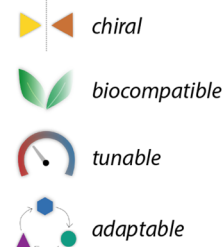
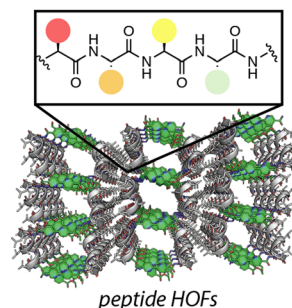
See Jinyi Lin, Linghai Xie, Panče Naumov, Wei Huang *et al.*, pp. 3687–3713. Image reproduced by permission of Wei Huang from *Chem. Soc. Rev.*, 2024, 53, 3687.

## TUTORIAL REVIEW

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### Peptide hydrogen-bonded organic frameworks

Thangavel Vijayakanth,\* Sneha Dasgupta, Pragati Ganatra, Sigal Rencus-Lazar, Aamod V. Desai, Shyamapada Nandi, Rahul Jain, Santu Bera, Andy I. Nguyen,\* Ehud Gazit\* and Rajkumar Misra\*

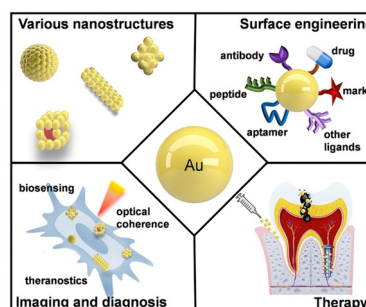


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### Nanochemistry of gold: from surface engineering to dental healthcare applications

Shuang Zhang, Na Kong, Zezheng Wang, Yangheng Zhang,\* Can Ni, Lingjun Li, Hongbin Wang, Min Yang, Wenrong Yang\* and Fuhua Yan\*



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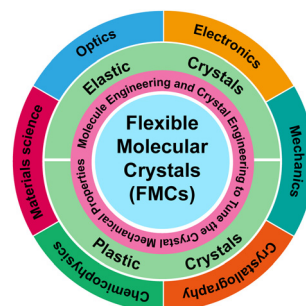
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## Flexible molecular crystals for optoelectronic applications

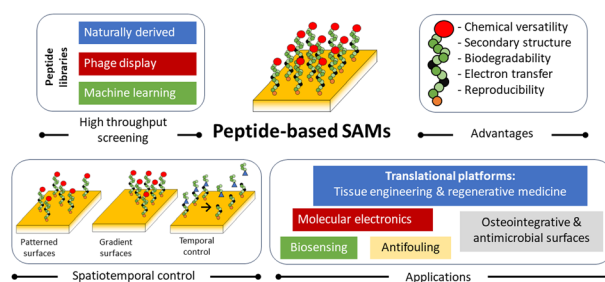
Chuanxin Wei, Liang Li, Yingying Zheng, Lizhi Wang, Jingyao Ma, Man Xu, Jinyi Lin,\* Linghai Xie,\* Panče Naumov,\* Xuehua Ding, Quanyou Feng and Wei Huang\*



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## Peptide-based self-assembled monolayers (SAMs): what peptides can do for SAMs and vice versa

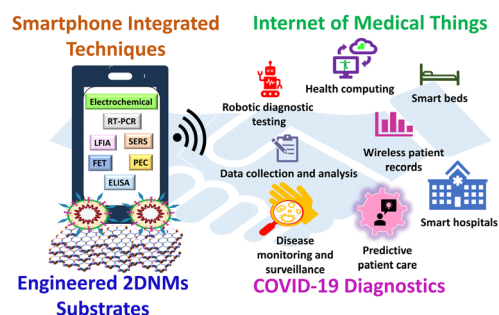
Carlos Redondo-Gómez, Paula Parreira, M. Cristina L. Martins and Helena S. Azevedo\*



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## Engineered two-dimensional nanomaterials based diagnostics integrated with internet of medical things (IoMT) for COVID-19

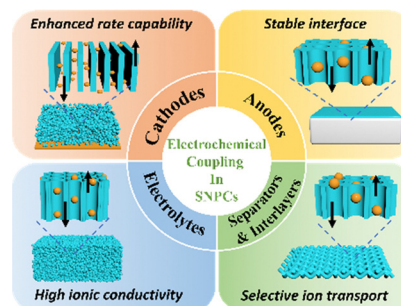
Mohd. Abubakar Sadique, Shalu Yadav, Raju Khan\* and Avanish K. Srivastava\*



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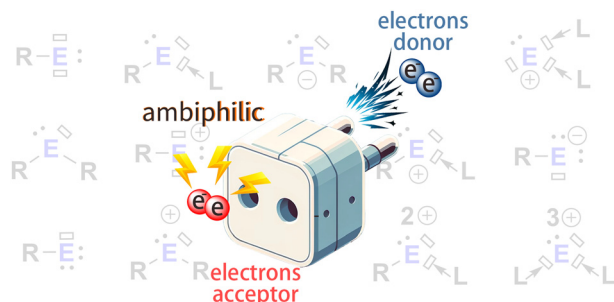
## Electrochemical coupling in subnanometer pores/channels for rechargeable batteries

Yao-Jie Lei, Lingfei Zhao, Wei-Hong Lai, Zefu Huang, Bing Sun, Pauline Jaumaux, Kening Sun,\* Yun-Xiao Wang\* and Guoxiu Wang\*



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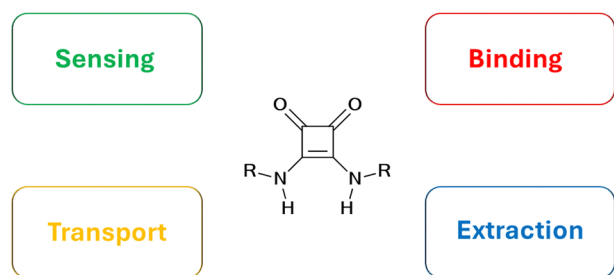
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### Recent advances in the chemistry of isolable carbene analogues with group 13–15 elements

Mian He, Chaopeng Hu, Rui Wei, Xin-Feng Wang and Liu Leo Liu\*

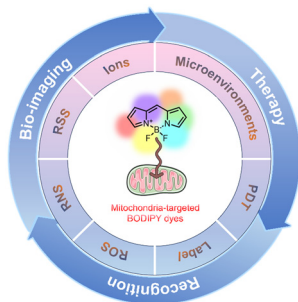
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### Squaramide-based receptors in anion supramolecular chemistry: insights into anion binding, sensing, transport and extraction

Giacomo Picci,\* Riccardo Montis,\* Vito Lippolis and Claudia Caltagirone\*

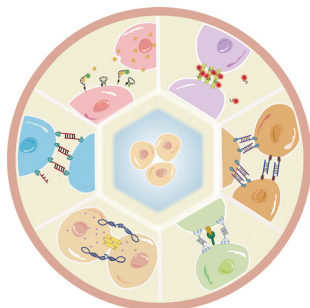
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### Mitochondria-targeted BODIPY dyes for small molecule recognition, bio-imaging and photodynamic therapy

Sisi Wang, Lizhi Gai, Yuncong Chen, Xiaobo Ji, Hua Lu\* and Zijian Guo\*

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### DNA nanostructures for exploring cell–cell communication

Ya Wang, Yamin Xiong, Kangqi Shi, Clement Yaw Effah, Lulu Song, Leiliang He\* and Jianbo Liu\*

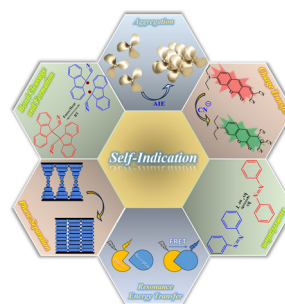


## REVIEW ARTICLES

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**Self-indicating polymers: a pathway to intelligent materials**

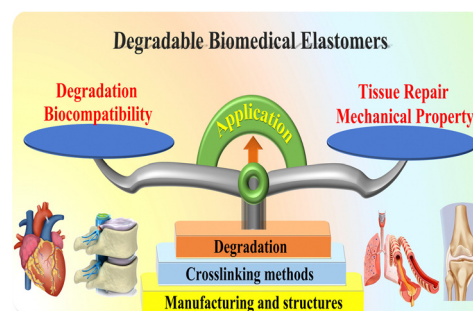
Mobina Bayat, Hanieh Mardani,  
Hossein Roghani-Mamaqani\* and  
Richard Hoogenboom\*



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**Degradable biomedical elastomers: paving the future of tissue repair and regenerative medicine**

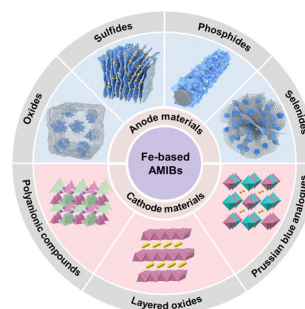
Ben Jia, Heyuan Huang,\* Zhicheng Dong, Xiaoyang Ren,  
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Baolin Guo\*



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**Progress and perspectives on iron-based electrode materials for alkali metal-ion batteries: a critical review**

Junzhe Li, Chao Wang, Rui Wang, Chaofeng Zhang,\*  
Guanjie Li, Kenneth Davey, Shilin Zhang\* and  
Zaiping Guo\*



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**Routes to high-performance layered oxide cathodes for sodium-ion batteries**

Jingqiang Wang, Yan-Fang Zhu,\* Yu Su, Jun-Xu Guo,  
Shuangqiang Chen, Hua-Kun Liu, Shi-Xue Dou,  
Shu-Lei Chou\* and Yao Xiao\*

