

IN THIS ISSUE

ISSN 0306-0012 CODEN CSRVBR 53(4) 1695–2250 (2024)



Cover

See Yukihiro Ozaki, Yusuke Morisawa and Ichiro Tanabe, pp. 1730–1768.
Image reproduced by permission of Yukihiro Ozaki from *Chem. Soc. Rev.*, 2024, **53**, 1730.



Inside cover

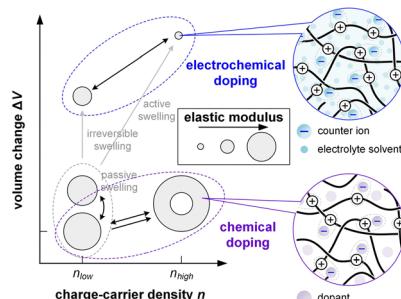
See Cuncun Wu, Bo Qu, Lixin Xiao et al., pp. 1769–1788.
Image reproduced by permission of Lixin Xiao from *Chem. Soc. Rev.*, 2024, **53**, 1769.

TUTORIAL REVIEW

1702

Impact of doping on the mechanical properties of conjugated polymers

Sri Harish Kumar Paleti, Youngseok Kim, Joost Kimpel, Mariavittoria Craighero, Shuichi Haraguchi and Christian Müller*

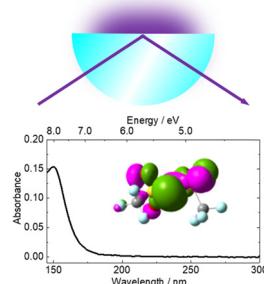


REVIEW ARTICLES

1730

ATR-far-ultraviolet spectroscopy: a challenge to new σ chemistry

Yukihiro Ozaki,* Yusuke Morisawa* and Ichiro Tanabe*



Advance your career in science

with professional recognition that showcases your **experience, expertise and dedication**

Stand out from the crowd

Prove your commitment to attaining excellence in your field

Gain the recognition you deserve

Achieve a professional qualification that inspires confidence and trust

Unlock your career potential

Apply for our professional registers (RSci, RSciTech) or chartered status (CChem, CSci, CEnv)

Apply now
rsc.li/professional-development

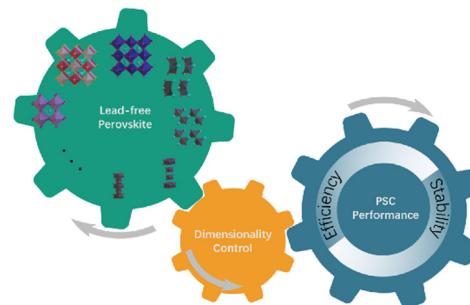


REVIEW ARTICLES

1769

Breaking the bottleneck of lead-free perovskite solar cells through dimensionality modulation

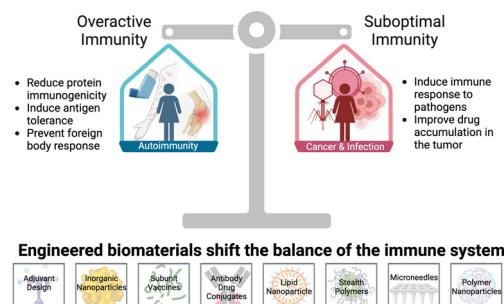
Wenjin Yu, Yu Zou, Hantao Wang, Siyuan Qi, Cuncun Wu,* Xinyu Guo, Yueli Liu, Zhijian Chen, Bo Qu* and Lixin Xiao*



1789

Therapeutic synthetic and natural materials for immunoengineering

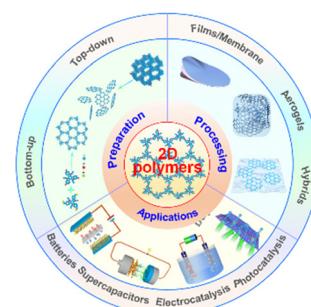
Anna Slezak, Kevin Chang, Samir Hossainy, Aslan Mansurov, Stuart J. Rowan, Jeffrey A. Hubbell* and Mustafa O. Guler*



1823

Recent advances in two-dimensional polymers: synthesis, assembly and energy-related applications

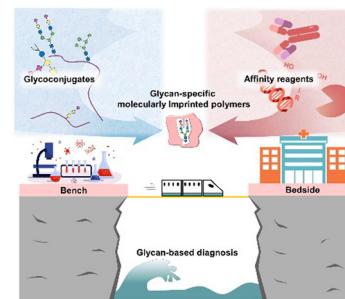
Yumei Ren and Yuxi Xu*



1870

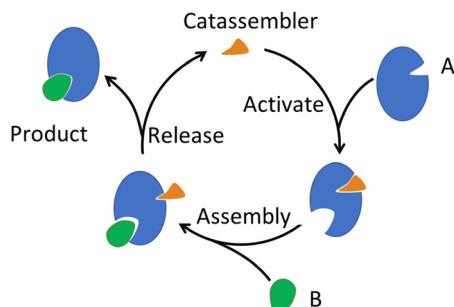
Glycan-specific molecularly imprinted polymers towards cancer diagnostics: merits, applications, and future perspectives

Pengfei Li and Zhen Liu*



REVIEW ARTICLES

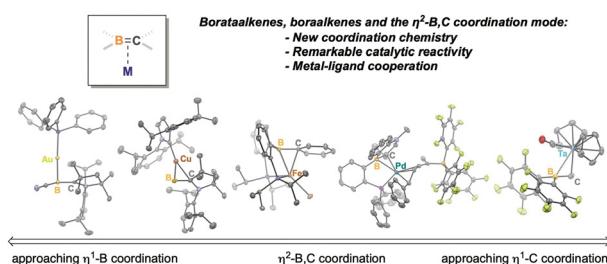
1892



What can molecular assembly learn from catalysed assembly in living organisms?

Zhi-Chao Lei, Xinchang Wang, Liulin Yang,* Hang Qu, Yibin Sun, Yang Yang, Wei Li, Wen-Bin Zhang, Xiao-Yu Cao, Chunhai Fan, Guohong Li, Jiarui Wu and Zhong-Qun Tian*

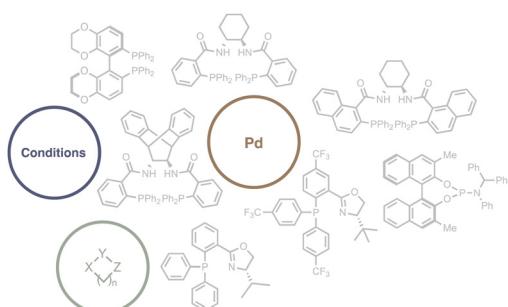
1915



Borataalkenes, boraalkenes, and the η^2 -B,C coordination mode in coordination chemistry and catalysis

Maxwell Eaton, Yuanzhe Zhang and Shih-Yuan Liu*

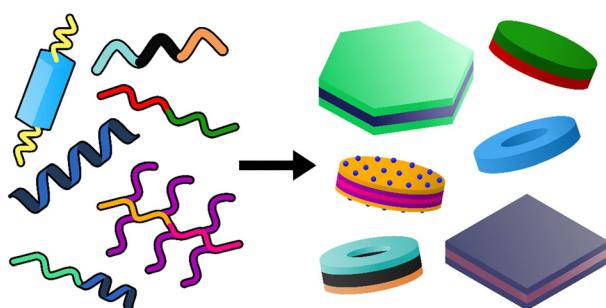
1936



Pd-Catalysed asymmetric allylic alkylation of heterocycles: a user's guide

François Richard, Paul Clark, Al Hannam, Thomas Keenan, Alexandre Jean and Stellios Arseniyadis*

1984



Nanoscale polymer discs, toroids and platelets: a survey of their syntheses and potential applications

Emma R. L. Brisson, Max J. H. Worthington, Simran Kerai and Markus Müllner*

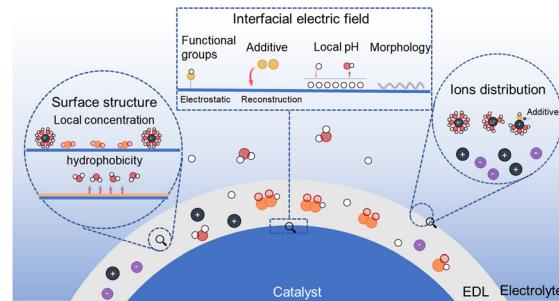


REVIEW ARTICLES

2022

Local reaction environment in electrocatalysis

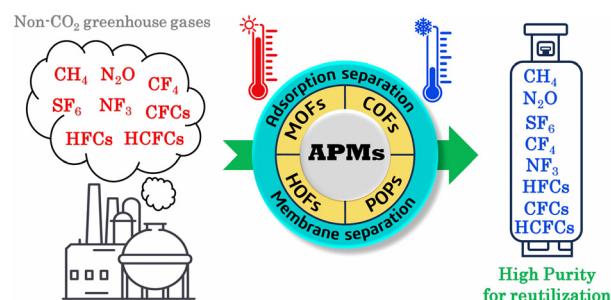
Chaojie Chen, Huanyu Jin, Pengtang Wang, Xiaogang Sun, Mietek Jaroniec, Yao Zheng* and Shi-Zhang Qiao*



2056

Non-CO₂ greenhouse gas separation using advanced porous materials

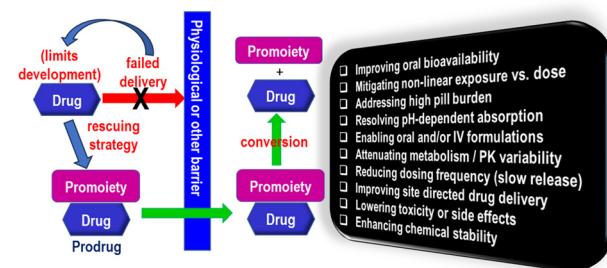
Yan-Long Zhao, Xin Zhang,* Mu-Zi Li and Jian-Rong Li*



2099

Prodrugs as empowering tools in drug discovery and development: recent strategic applications of drug delivery solutions to mitigate challenges associated with lead compounds and drug candidates

Murugaiah A. M. Subbaiah,* Jarkko Rautio and Nicholas A. Meanwell



2211

High-entropy rare earth materials: synthesis, application and outlook

Hao Fu, Yong Jiang, Mengzhen Zhang, Ziyun Zhong, Zhong Liang, Siyuan Wang, Yaping Du* and Chunhua Yan

