

## IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 60(32) 4257-4372 (2024)



### Cover

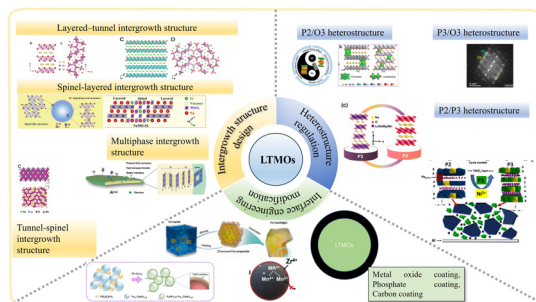
See Akkattu T. Biju *et al.*,  
pp. 4290–4293.  
Image reproduced  
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Akkattu T. Biju from  
*Chem. Commun.*,  
2024, 60, 4290.

## HIGHLIGHT

4266

### The innovative design of high-performance layered transition metal oxides for sodium-ion batteries from a commercial perspective

Jingjing Pan, Jialu Wu, Xiaomin Zou, Shulei Chou and Bo Zhang\*

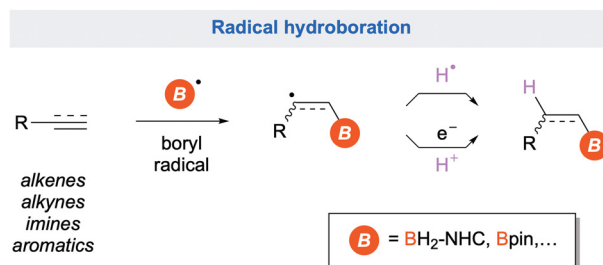


## FEATURE ARTICLE

4275

### Radical hydroboration for the synthesis of organoboron compounds

Yee Lin Phang, Ji-Kang Jin, Feng-Lian Zhang\* and Yi-Feng Wang\*



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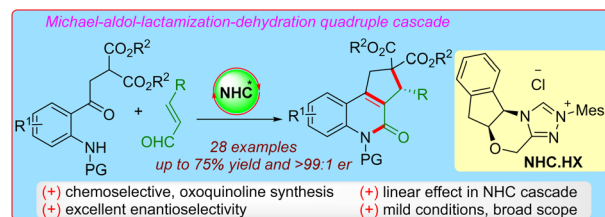
Fundamental questions  
Elemental answers

## COMMUNICATIONS

4290

### Enantioselective synthesis of tricyclic oxoquinolines via NHC-catalyzed Michael-aldol-lactamization-dehydration cascade

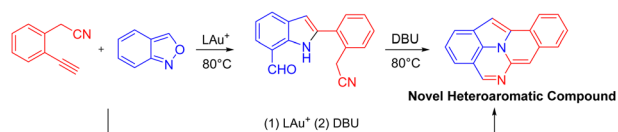
Shilpa Barik, Ganga Sankar and Akkattu T. Biju\*



4294

### Synthesis of two nitrogen-containing polyaromatic compounds through gold catalysis/DBU-promoted cyclizations

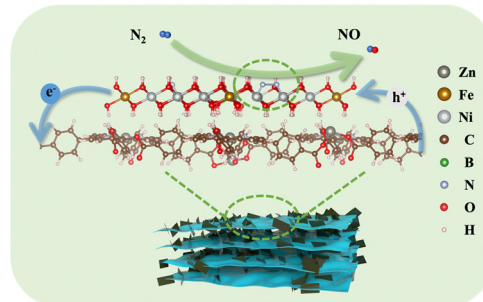
Vikas Ashokrao Sadaphal, Tien-Lin Wu and Rai-Shung Liu\*



4298

### NiFeB-assisted adsorption and activation of nitrogen to improve the photooxidation activity of zinc porphyrin

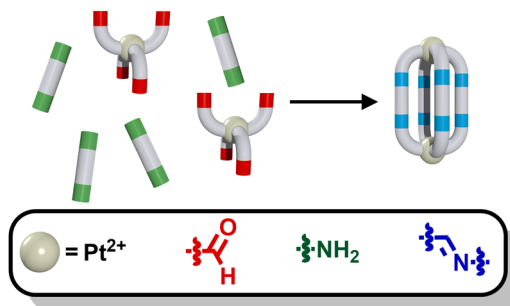
Xuan Zhang, Yawen Tan, Juntao Zhao, Zixuan Cai, Jun Zhang\* and Puttaswamy Madhusudan\*



4302

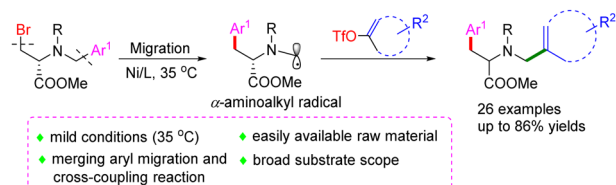
### A dynamic covalent approach to [Pt<sub>n</sub>L<sub>2n</sub>]<sup>2n+</sup> cages

Quinn V. C. van Hilst, Aston C. Percy, Dan Preston, L. James Wright, Christian G. Hartinger, Heather J. L. Brooks and James D. Crowley\*



## COMMUNICATIONS

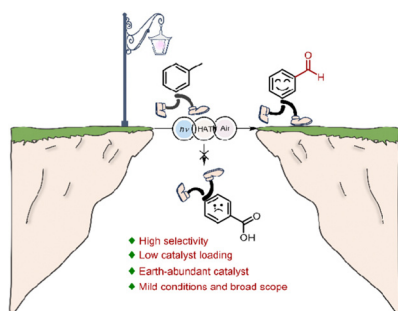
4306



### A radical 1,4-aryl migration enables nickel-catalysed remote cross-electrophile coupling of $\beta$ -bromo amino acid esters with vinyl triflates

Yin-Ling Liu, Jian Liu, Xin-Yu Li, Peng He, Yu-Xuan Liu, Mei Xiang and Shi Tang\*

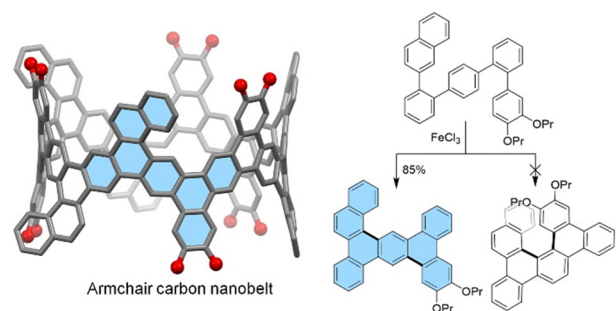
4310



### Photocatalytic selective oxidation of toluene under encapsulated air conditions

Jing Cui, Kai-Kai Niu,\* Rong-Zhen Zhang, Hui Liu, Shengsheng Yu and Ling-Bao Xing\*

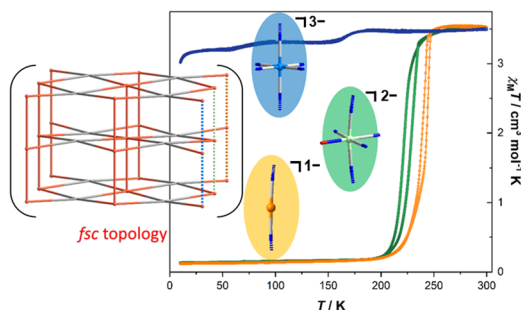
4314



### A new armchair carbon nanobelt synthesized by tuning the regioselectivity of the Scholl reaction of quinquephenyl

Zeming Xia, Ka Man Cheung, Han Chen, Sai Ho Pun and Qian Miao\*

4318



### Cyanometallic charge engineering in spin crossover metal–organic frameworks

Bang-Heng Lyu, Kai-Ping Xie, Wen Cui, Yan-Cong Chen, Guan-Xi Chen, Si-Guo Wu\* and Ming-Liang Tong\*

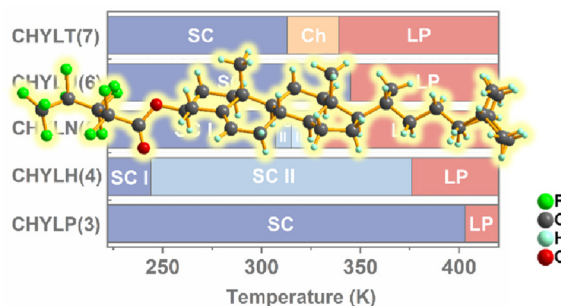


## COMMUNICATIONS

4322

### Modulating the ferroelectric phases in cholesteryl-based organic compounds with perfluoroalkyl tail engineering

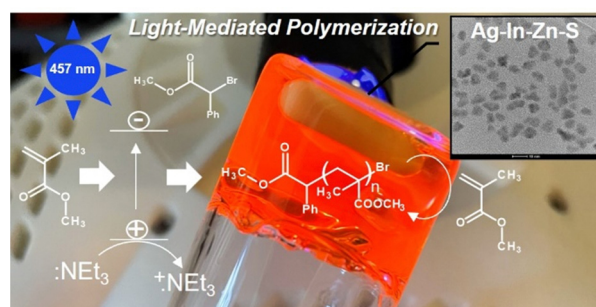
Huan-Huan Jiang, Nan Zhang, Wei-Xin Mao, Jin-Fei Lan, Long-Xing Zhou, Hua-Ming Xu, Han-Yue Zhang\* and Wei-Qiang Liao\*



4326

### Ag–In–Zn–S alloyed nanocrystals as photocatalysts of controlled light-mediated radical polymerization

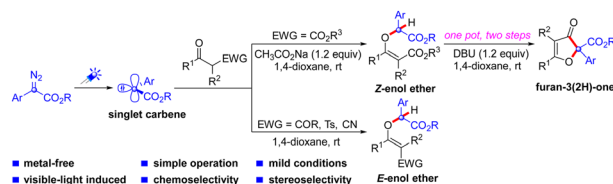
Patrycja Kowalik, Piotr Bujak\*, Mateusz Penkala, Anna Iuliano, Ireneusz Wielgus, Karolina Peret and Adam Pron



4330

### Dioxane promoted photochemical O-alkylation of 1,3-dicarbonyl compounds beyond carbene insertion into C–H and C–C bonds

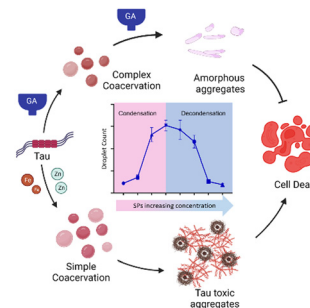
Xinlong Zhou, Jingjing Jiang, Min Zhang, Qingqing Wu, Keyong Zhu, Dongjie Shi, Sensen Hou, Jingjing Zhao\* and Pan Li\*



4334

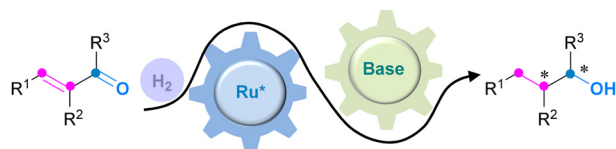
### Biphasic modulation of tau liquid–liquid phase separation by polyphenols

Hariharan Moorthy, Nimsha Kamala, Madhu Ramesh and Thimmaiah Govindaraju\*



## COMMUNICATIONS

4338

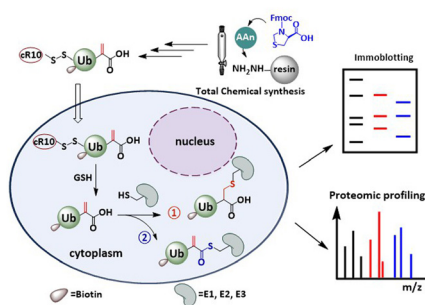


### Ru-catalyzed asymmetric hydrogenation of $\alpha,\beta$ -unsaturated ketones *via* a hydrogenation/isomerization cascade

Kun Wang, Saisai Niu, Weijun Tang,\* Dong Xue, Jianliang Xiao, Hongfeng Li and Chao Wang\*

- Asymmetric C=O hydrogenation/allylic alcohol isomerization cascade
- Both cyclic and acyclic substrates
- Dynamic kinetic resolution
- up to >99:1 dr, 98% ee

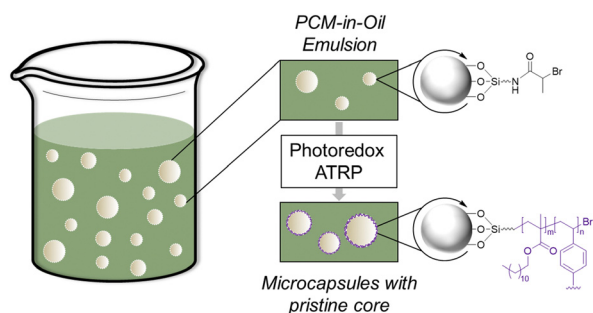
4342



### A cell-permeable Ub-Dha probe for profiling E1–E2–E3 enzymes in live cells

Qiong Xia, Xianbin Meng, Yu Wang,\* Rujing Yuan, Pincheng Li, Liwen Liu and Yi-Ming Li\*

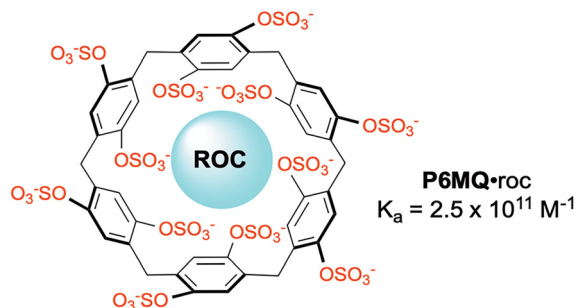
4346



### Microcapsule fabrication by ATRP at the interface of non-aqueous emulsions

Nicholas C. Starvaggi, Chase B. Somodi, Eliandreina Cruz Barrios, Patrick J. Shamberger and Emily B. Pentzer\*

4350



### Pillar[6]MaxQ functions as an *in vivo* sequestrant for rocuronium and vecuronium

Wanping Zhang, Emmanuel A. Bazan-Bergamino, Anton P. Doan, Xiangjun Zhang\* and Lyle Isaacs\*

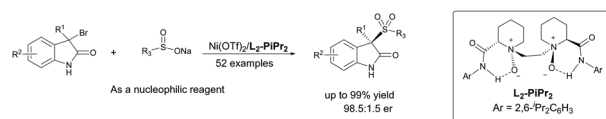


## COMMUNICATIONS

4354

**Enantioselective sulfonylation to construct 3-sulfonylated oxindoles**

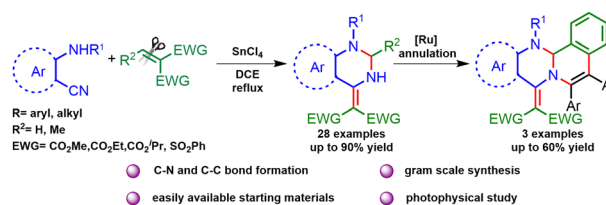
Hongye Li, Yuqiao Zhou, Zheng Tan, Xiangyu Wang, Yuxin Zhang, Fei Wang, Xiaoming Feng\* and Xiaohua Liu\*



4358

**Synthesis of tetrahydroquinazolines from 2-aminobenzonitriles and alkylidene malonates via 1,4-conjugate addition and an unprecedented rearrangement reaction**

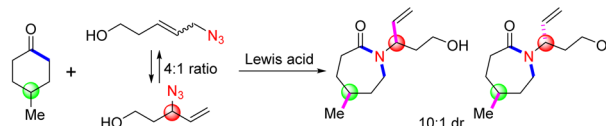
Bikoshita Porashar, Bipin Kumar Behera, Hunmoina Phukon and Anil K. Saikia\*



4362

**Stereocontrol in an intermolecular Schmidt reaction of equilibrating hydroxyalkyl allylic azides**

Ruzhang Liu,\* Juan Wang, Hao Wu, Xianfeng Quan, Shilin Wang, Jiandong Guo, Yang Wang and Heting Li



4366

**BODIPY phototether enables oligonucleotide cyclization and subsequent deprotection by tissue-transparent red light**

Lucie Wohlrábová, Marlen Sahlbach, Alexander Heckel and Tomáš Slanina\*

