

ChemComm

Chemical Communications

rsc.li/chemcomm

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 62(36) 9029-9296 (2026)



Cover

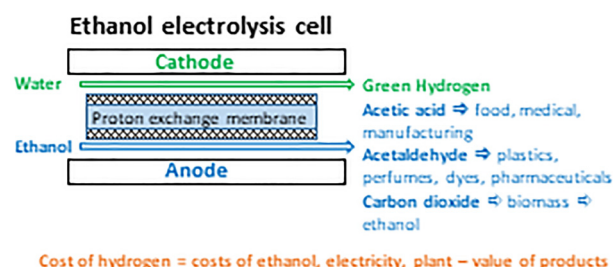
See Saki Maejima, Hideki Yorimitsu *et al.*, pp. 9176-9179. Image reproduced by permission of Saki Maejima and Harukazu Matsumura, *Chem. Commun.*, 2026, 62, 9176.

FEATURE ARTICLES

9041

Controlling product distributions from ethanol electrolysis

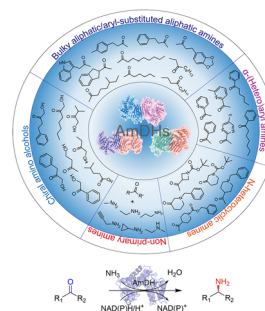
Peter G. Pickup



9054

Amine dehydrogenases: a versatile class of enzymes in the asymmetric synthesis of chiral amines and amino alcohols

Hong-Yu Zhu, Yi-Min Ma, Qian-Sui Gu, Si-Qi Huo, A-Lei Zhang, Fei-Fei Chen* and Ke-Quan Chen*



Royal Society of Chemistry approved training courses

Explore your options.
Develop your skills.
Discover learning
that suits you.

**Courses in the classroom,
the lab, or online**

Find something for every
stage of your professional
development. Search our
database by:

- subject area
- location
- event type
- skill level

Members **get at least 10% off**

Visit rsc.li/cpd-training



**SAVE
10%**

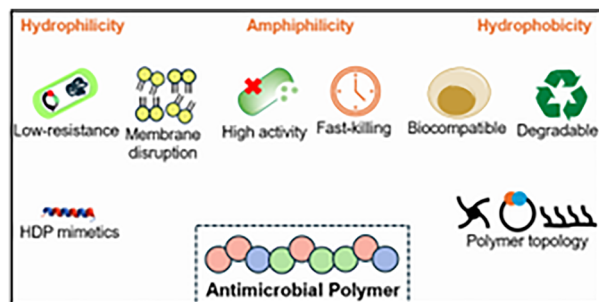


REVIEWS

9069

Precision-engineered polymer topologies: balancing potent antibacterial efficacy with enhanced biocompatibility

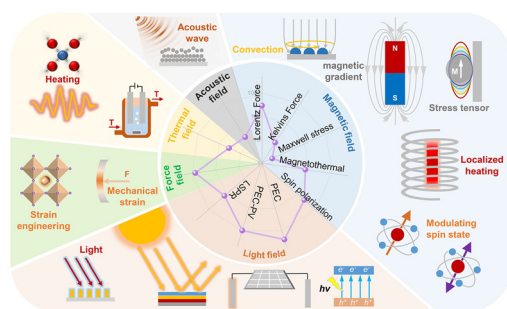
Md Aquib, Vinod Kumar Kannaujiya and Cyrille Boyer*



9120

Recent advances in external field-assisted electrocatalysis: mechanisms, synergies, and future perspectives

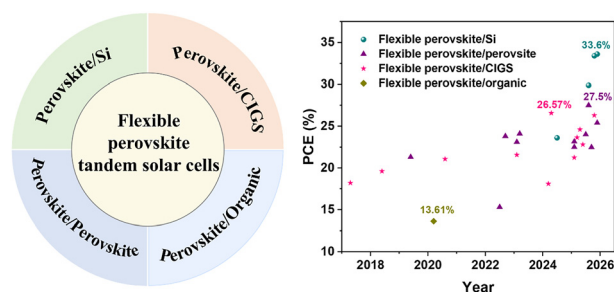
Bin Zhu, Xiao Yu, Zhaobin Meng, Jia Zeng, Soliman I. El-Hout, Jian Zhang* and Chunlin Chen*



9137

The rise of flexible perovskite tandem solar cells: configurations, progress, challenges, and future frontiers

Zijun Yi, Long Zhang, Asif Al Jaman, Hui Li,* Fang Ding, Yingjie Cai* and Xuehong Ren*

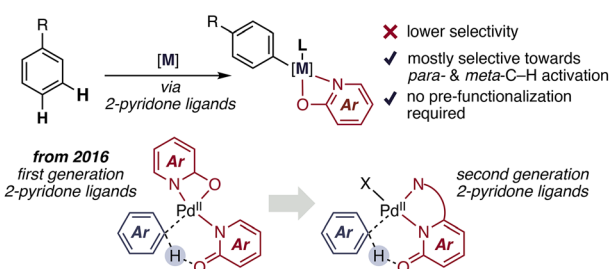


9164

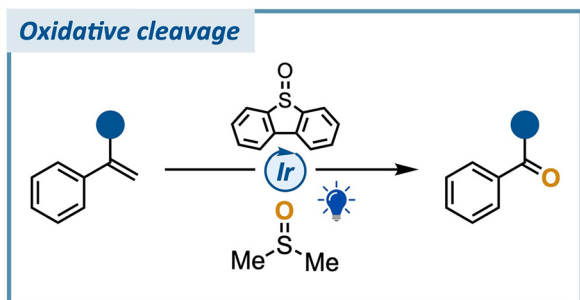
2-Pyridone ligands as a design platform for palladium-catalyzed C(sp²)-H functionalization reactions

Namrata Kotwal, Deepak Sharma and Claire Empel*

2-Pyridone Ligands in C-H Functionalization



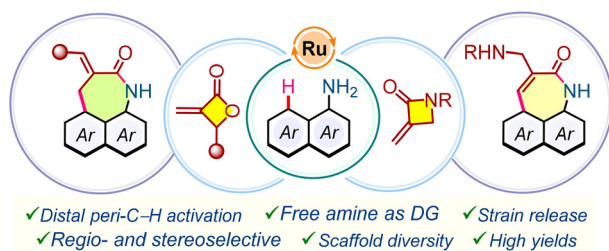
9176



Oxidative cleavage of α -substituted styrenes using excited dibenzothiophene *S*-oxide and DMSO

Yuto Tamba, Saki Maejima* and Hideki Yorimitsu*

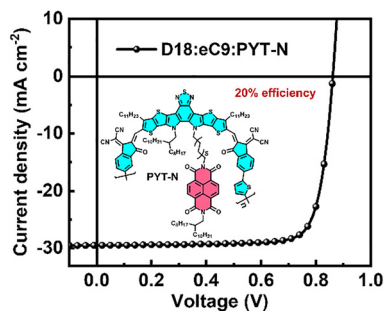
9180



Free-amine-directed Ru(II)-catalyzed *peri*-selective C–H activation and annulation *via* ring-strain release

Sudeshna Mondal, Prabhudatta Behura and Mahiuddin Baidya*

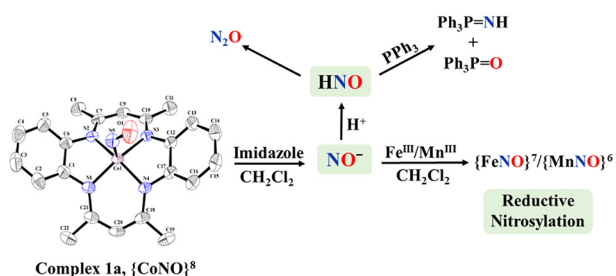
9184



A double-cable polymer acceptor enables 20% efficiency in ternary organic solar cells

Qin Tan, Shijie Liang,* Yang Cheng, Lijuan Liu, Haiyun Fan, Bo Wang, Chenhui Zhang,* Chengyi Xiao and Weiwei Li*

9188



Ligand-induced release of HNO/NO⁻ from a cobalt(II)-nitrosyl complex

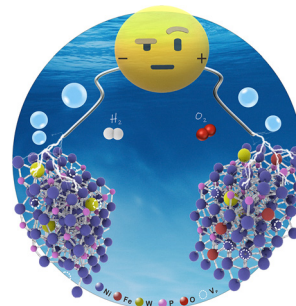
Shankhadeep Saha, Bristi Maina Deka, Ankur K. Guha and Biplab Mondal*



9193

Activating multimetallic phosphides via plasma-induced phosphorus vacancies for efficient water electrolysis

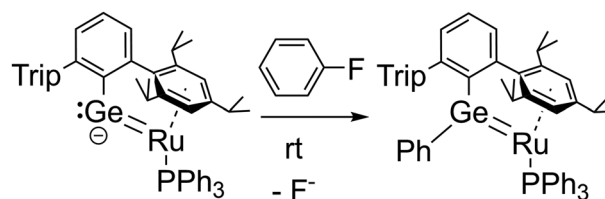
Yang Yang,* Zhi-Yuan Jiang, Peng-Fei Guo, Min-Huan Zhang, Jian-Hua Meng, Ran Jin, Ke-Xiang Wang, Ran Ma* and Xun Cui*



9198

Tetrylidene coordination modes: vinyl-type germa–ruthena anion [Ru=Ge:][−] and its reaction with monofluorobenzene

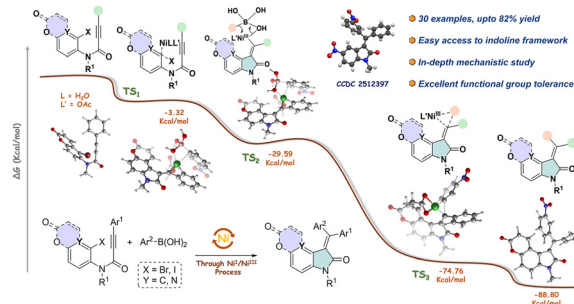
Frederic Seeger, Liesa Renz and Lars Wesemann*



9203

Ligand-free nickel-catalyzed arylation cascades for accessing pyrrolopyridin-2-one, pyranoindole-2,7-dione, and indolin-2-one frameworks with mechanistic insights

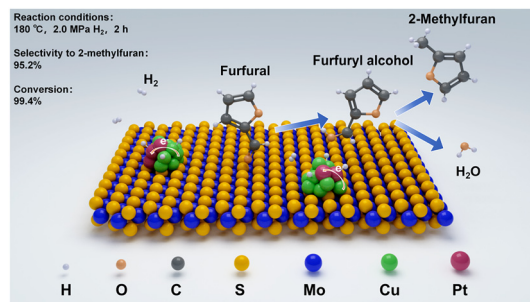
Sk Shamim Ahamed, Uma Sankar Mandal, Debashree Manna* and Tapas Ghosh*



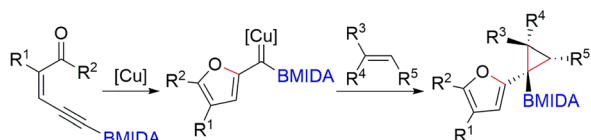
9208

MoS₂-supported highly dispersed PtCu bimetallic nanoparticles for enhancing furfural selective hydrogenation to 2-methylfuran

Jintao Guo, Jiani He, Luna Ruan,* Yu Fang, Zhiqing Yang,* Hengqiang Ye and Lihua Zhu*



9213

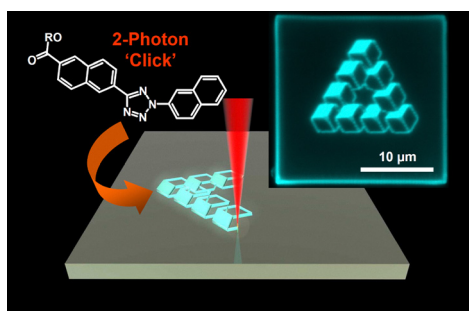


- ☑ cost-effective copper as catalyst
- ☑ excellent diastereoselectivities
- ☑ mild reaction conditions
- ☑ modification of bioactive molecules
- ☑ diverse transformation of BMIDA
- ☑ structurally novel borylcyclopropanes

Highly diastereoselective synthesis of borylcyclopropanes by copper-catalyzed borylcyclopropanation of alkenes with enynones

Fei Lu, Daan Song, Xinhao Sun, Ling Zhi, Xiaoyun Liu, Ximei Zhao and Guanghui Wang*

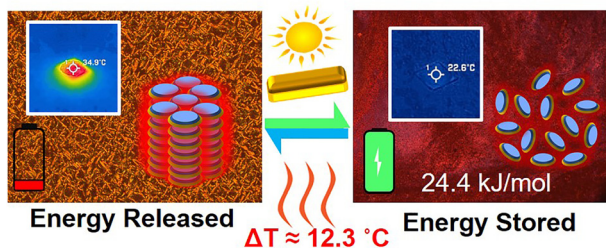
9218



Multiplexed fluorescent polymeric microstructures sequentially encoded via tetrazole-based two-photon click chemistry

Rana Mhanna, Nicolas Fournier Le Ray, Stephania Abdallah, Aissa Id Boualim, Jean-Luc Fillaut and Jean-Pierre Malval*

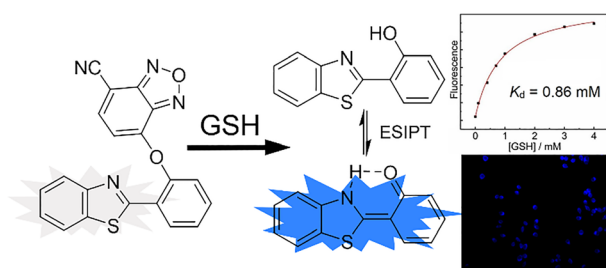
9222



Efficient molecular solar thermal energy storage in self-assembled columnar triethynylbenzene-azobenzene systems

Ashy, Rankit Talukdar, Kiran, Shreya and Monika Gupta*

9226



Visualizing glutathione levels in adipose tissue: a CBD aryl ether thiolysis-activated ESIPT probe for obesity research

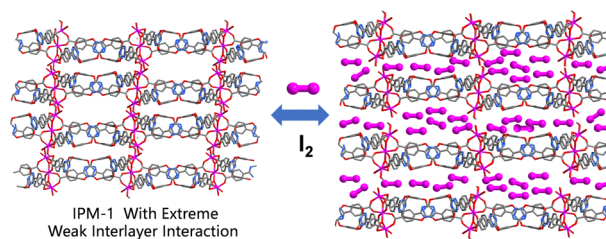
Liya Jing, Lijuan Shan, Ziming Shen, Mengyuan Liu, Junjie Shi, Chunlin Qian, Zihan Jiang, Minxuan Xiong, Xixian Miao, Zhicheng Xie, Jing Xu, Haowen Jiang, Jia Li, Chang Peng,* Jintong Li* and Wei Liu*



9230

Intercalation-enabled reversible disorder and efficient iodine capture in a two-dimensional metal–organic framework

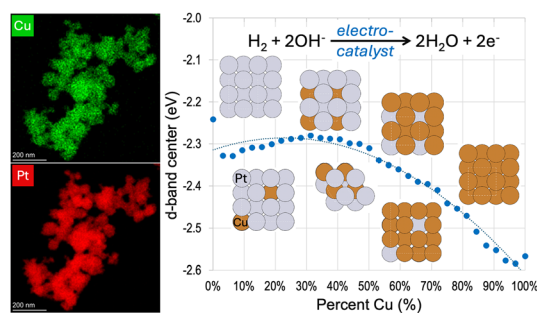
Ruize Xie, Haoqing Jia, Peng Ye and Yin Chen*



9234

Composition-dependent hydrogen oxidation activity of Pt–Cu nanoparticles prepared using boron-rich nanosheets

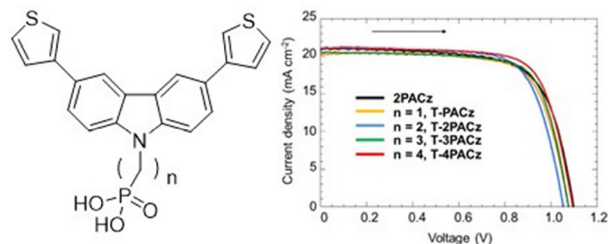
Bhagyashri Gaykwad, Donald A. Robinson, Nicholas Humphrey, Samuel F. Wenzel, Carly Hui, Natalia McCoy, Farid El Gabaly, Joshua D. Sugar, Matthew D. Witman, Kabeer Jasuja,* Hang Ren* and Vitalie Stavila*



9239

Effect of alkyl spacer length of thienyl-substituted carbazole-type self-assembled monolayers on the performance of inverted perovskite solar cells

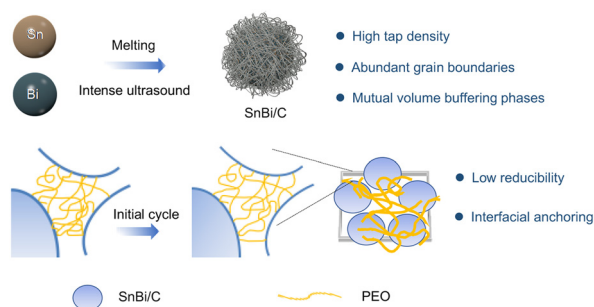
Nobuko Onozawa-Komatsuzaki,* Atsushi Kogo, Takuma Chigira, Hiroyuki Yaguchi, Masayuki Chikamatsu, Takashi Funaki* and Takuro N. Murakami*



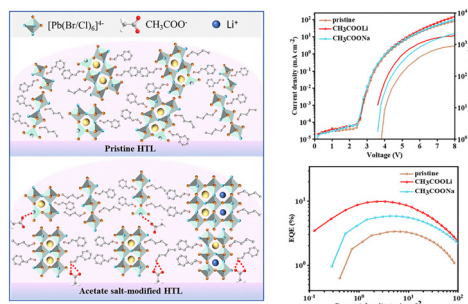
9244

Achieving ultrahigh initial Coulombic efficiency in SnBi/C anode for sodium-ion batteries via interfacial engineering and binder optimization

Chunting Wang, Qian Yao, Long Su, Jingjing Dong, Yingchun Yan,* Weimin Zhang and Jian Yang*



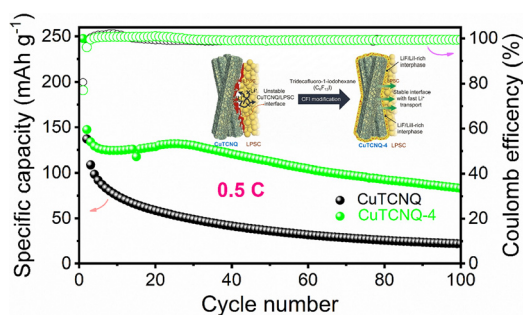
9249



Suppressing interfacial nonradiative recombination with an acetate interlayer for high-performance pure blue perovskite LEDs

Ziqiang Chen, Minfei Lan, Zhirui Liu, Lanlan Zhai,*
Qian Miao,* He Huang, Guoku Chao, Yun Yang,
Jun Zou and Chao Zou*

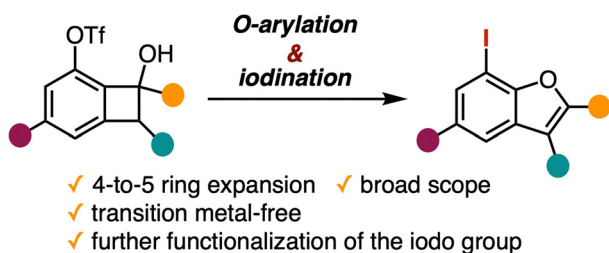
9254



Stabilizing CuTCNQ cathodes in sulfide-based all-solid-state organic lithium batteries via a fluoriodinated molecular modifier

Wenwen Deng,* Ying Zhou, Yuanyuan Quan,
Yuhang Guo, Tianxiang Wei and Zhong Jin*

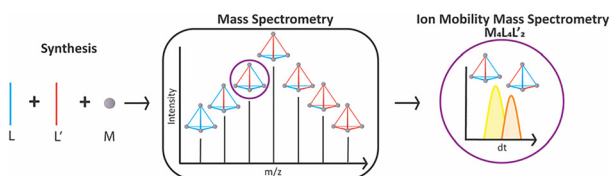
9258



Ring expansion of benzocyclobutenols toward benzo[b]furans

Yukitaka Hoshi and Suguru Yoshida*

9262



From statistical mixtures to structural insights: characterisation of heterometallic $[M_4L_6]^{8+}$ coordination cages using high resolution ion mobility mass spectrometry

Fangxing Hong, Michael C. Pfrunder, David L. Marshall,
Therese M. Fullon, Berwyck L. J. Poad,
Stephen J. Blanksby, Jack. K. Clegg,
John C. McMurtrie and Kathleen M. Mullen*

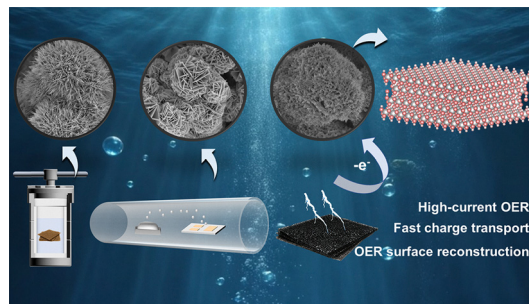


COMMUNICATIONS

9267

Reconstructed CoFeP on nickel foam for highly efficient alkaline oxygen evolution

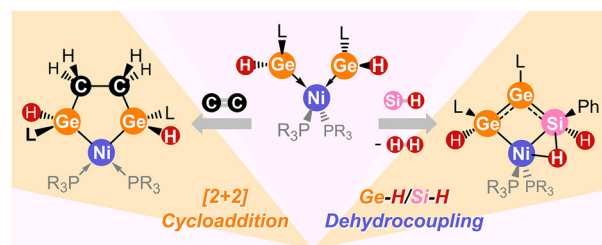
Xiangyu Liu, Zhiwei Han, Jilong Sun, Zheng Wang, Rui Xiao* and Zhiqi Zhang*



9272

Ge^{II}-H/Si^{IV}-H dehydrocoupling and cycloaddition chemistry of a Ni⁰ bis(hydridogermylene) complex

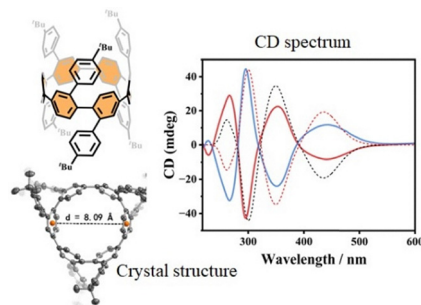
Emeric Schubert and Terrance J. Hadlington*



9277

Synthesis, crystal structure, and inherent chirality in hexa(*tert*-butylphenyl)-substituted [6]cycloparaphenylene

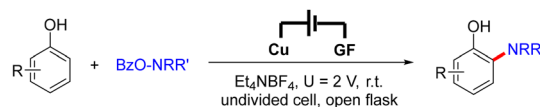
Xiaoyu Zhang, Xinyu Zhang, Dapeng Lu,* Qiang Huang and Pingwu Du*



9281

A catalyst and base-free electrochemical *ortho*-amination of phenols

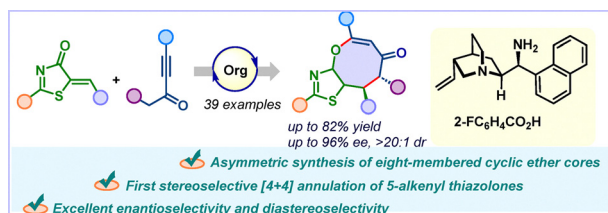
Chengling Deng, Hongliang Han, Jiaoyang Liu, Zhe Zhang, Fan Wang* and Zhong-Quan Liu*



- 35 examples
- 41-81% yields
- scaled-up to 10 grams
- site-specific
- catalyst and base free
- good functional group tolerance



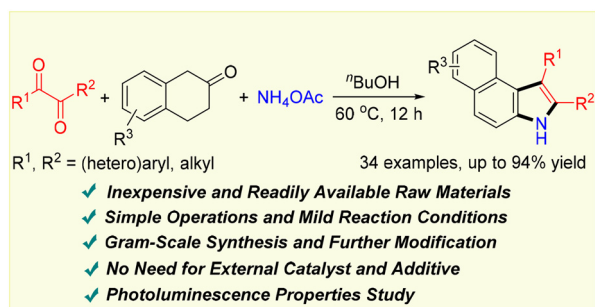
9285



Organocatalytic asymmetric [4+4]-annulation reaction between ynone and benzylidene thiazolones: synthesis of eight-membered ether containing 4,5-fused thiazoles

Dipankar Barman and Subhas Chandra Pan*

9289



Three-component assembly of 2,3-disubstituted benzo[e]indoles from 1,2-diketones, 2-tetralones, and NH₄OAc

Minxiu Liu, Qi Tan and Feng Zhao*

