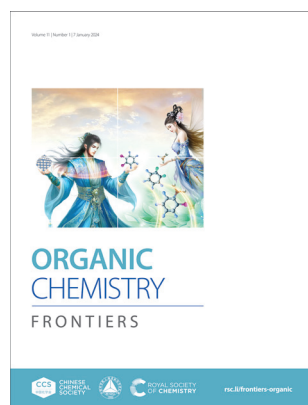


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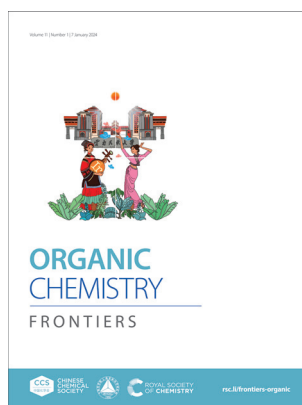
ISSN 2052-4129 CODEN OCFRA8 11(1) 1-256 (2024)



#### Cover

See Shihui Liu, Yanwei Hu, Shilei Zhang *et al.*, pp. 12–20.

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#### Inside cover

See Jingchao Chen and Baomin Fan *et al.*, pp. 21–26.

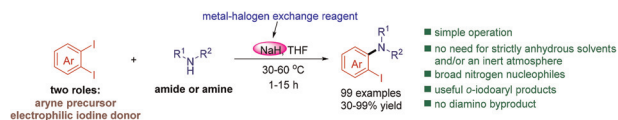
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#### A simple method for *N*-arylation of secondary amides/amines through a NaH-initiated aryne generation strategy

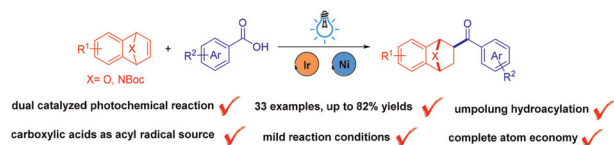
Yuanrui Jiang, Wenjing Zhu, Jiawen Huang, Fan Luo, Xiaobei Chen, Chunhui Fang, Xin Chen, Shihui Liu,\* Yanwei Hu\* and Shilei Zhang\*



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#### Iridium/nickel dual catalyzed hydroacylation of hetero-bicyclic alkenes under visible-light irradiation

Li Meng, Chunhui Yang, Jun Dong, Wantiu Wen, Jingchao Chen\* and Baomin Fan\*



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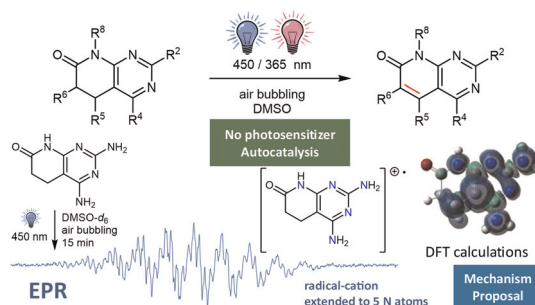
Fundamental questions  
Elemental answers

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### Autocatalytic photoinduced oxidative dehydrogenation of pyrido[2,3-*d*]pyrimidin-7(8*H*)-ones: synthesis of C5–C6 unsaturated systems with concomitant formation of a long-lived radical

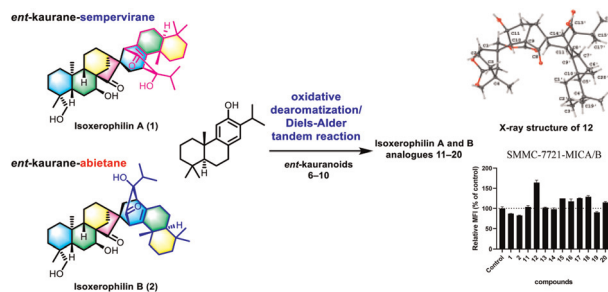
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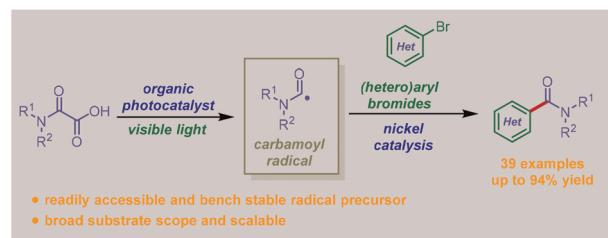
Jia-Meng Dai, Bing-Chao Yan, Ling-Mei Kong, Kun Hu, Xing-Ren Li, Xiao-Nian Li, Han-Dong Sun, Yan Li and Pema-Tenzin Puno\*



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### Photoredox Ni-catalyzed decarboxylative arylation of oxamic acids for amide synthesis

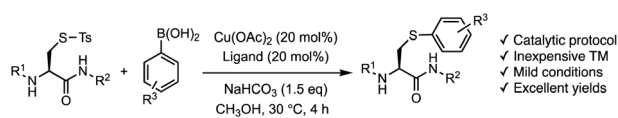
Depeng Duan and Lu Song\*



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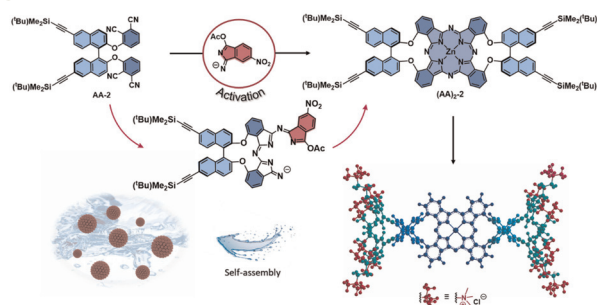
### Cu-catalyzed arylation of *S*-tosyl peptides with arylboronic acids

Junjie Ying, Jingrong Huang, Chenguang Liu, Fa-Jie Chen,\* Chunfa Xu\* and Fen-Er Chen\*



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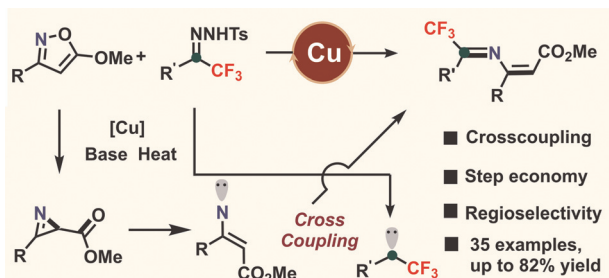
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### Controlling the reactivity of phthalonitriles for the efficient synthesis of chiral phthalocyanines with self-assembly abilities

Irene Paramio, Tomás Torres and Gema de la Torre\*

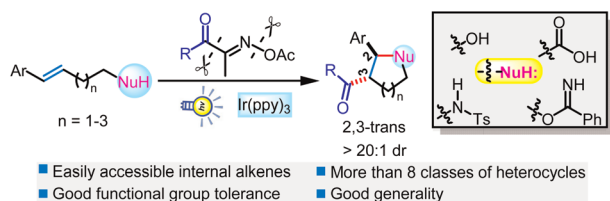
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### Copper-catalyzed crosscoupling of vinyl nitrenes and $\text{CF}_3$ -carbenes to synthesize $\text{CF}_3$ -2-azadienes

Yongjuan Jiao, Tao Wu, Xinyu Zhang and Yaojia Jiang\*

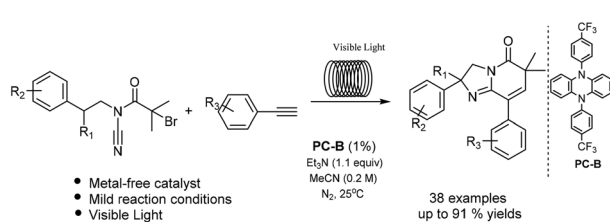
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### Photoredox-catalyzed intramolecular oxy- and aminoacylation of alkenes with acyl oxime esters: facile synthesis of acylated saturated heterocycles

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### Synthesis of imidazo[1,2-a]pyridinones via a visible light-photocatalyzed functionalization of alkynes/nitrile insertion/cyclization tandem sequence using micro-flow technology

Minghui Wei, Jiankun Chen, Chengkou Liu, Zhao Yang, Hong Qin, Yujing Hu, Jindian Duan, Yuguang Li, Zheng Fang\* and Kai Guo\*

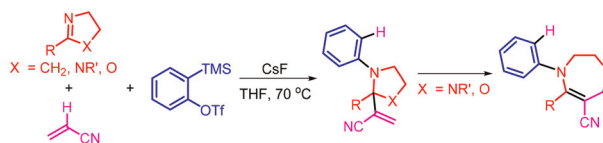


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**A novel three-component coupling reaction of aryne, C=N derivatives, and acrylonitrile**

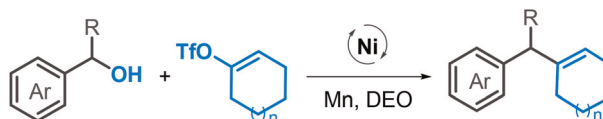
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**Nickel-catalyzed dynamic kinetic cross-electrophile coupling of benzylic alcohols and alkenyl triflates**

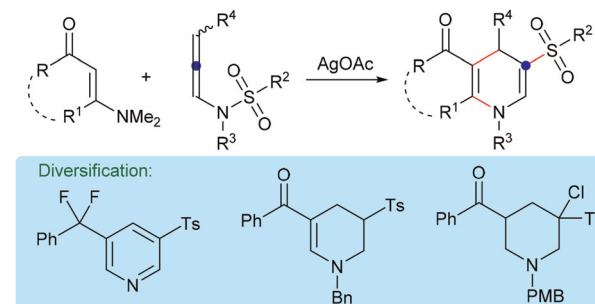
Xuejing Peng, Jingxian Huang, Guan-Yu Han and Xing-Zhong Shu\*



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**Silver-mediated synthesis of 1,4-dihydropyridine sulfones via [4 + 2] cyclization of N-allenylsulfonamides and enaminones with a 1,3-sulfonyl shift**

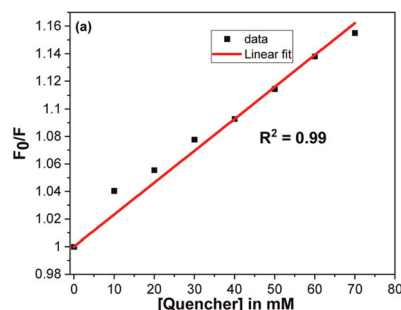
Shuguang Zhou, Shuang-Feng Dong, Xin Zhang, Shen-Yuan Zhang, Teck-Peng Loh\* and Jie-Sheng Tian\*



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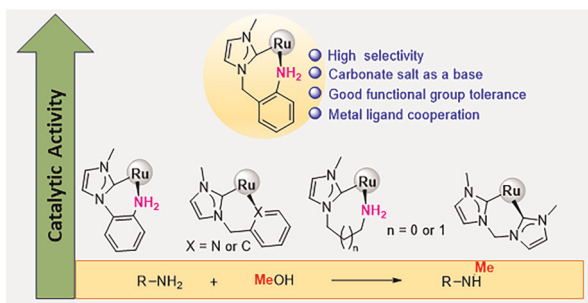
**Unveiling the potency of a phenalenyl-based photocatalyst for intramolecular dehydrogenative lactonization**

Partha Pratim Sen, Vishali Pathania and Sudipta Raha Roy\*



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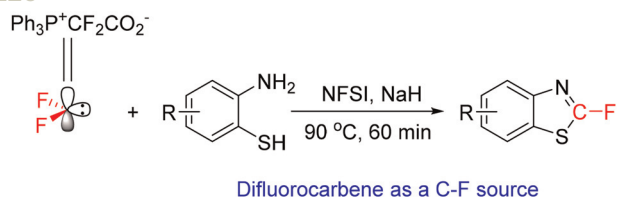
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### NHC-amine Ru complex catalyzed selective mono-N-methylation of amines with methanol: understanding the effect of amine ligands

Xiuju Cai, Xiaoyu Zhou and Ming Huang\*

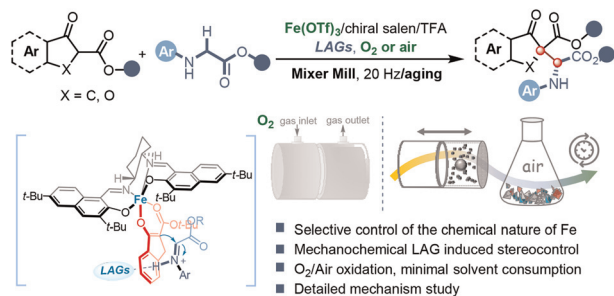
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### Difluorocarbene as a C-F source for the construction of fluorinated benzothiazoles

Wen-Jie Pan, Jiao Yu, Wei-Guo Cao,\* Ji-Chang Xiao\* and Jin-Hong Lin\*

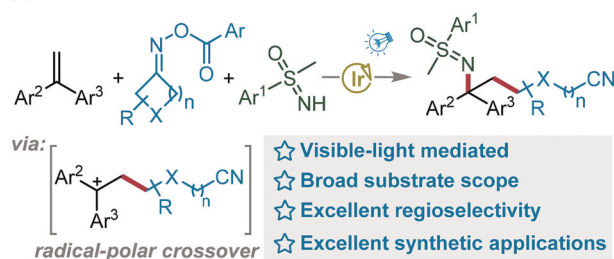
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### Iron-catalyzed asymmetric Csp<sup>3</sup>-H/Csp<sup>3</sup>-H coupling: improving the chirality induction by mechanochemical liquid-assisted grinding

Ping Ying, Tao Ying, Hong Chen, Keyu Xiang, WeiKe Su, Haijiao Xie and Jingbo Yu\*

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### Photoredox-catalyzed difunctionalization of alkenes with oxime esters and NH-sulfoximines

Hao-Cong Li, Guan-Nan Li, Hao-Sen Wang, Yan Tan, Xiao-Lan Chen\* and Bing Yu\*

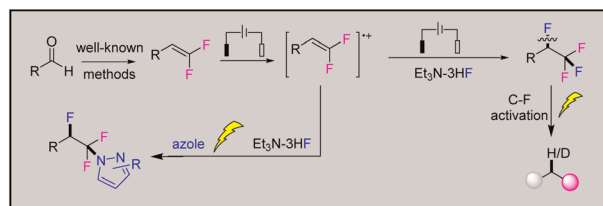


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**Direct electrochemical difluorination and azo-fluorination of *gem*-difluorostyrenes**

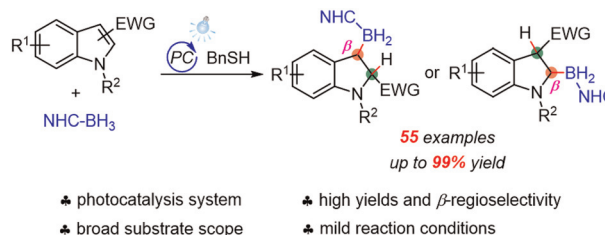
Linzi Wen, Boao Li, Ziyang Zou, Naifu Zhou, Chengbo Sun, Pengju Feng\* and Hongsheng Li\*



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**Photoredox dearomative  $\beta$ -hydroborylation of indoles for the synthesis of borylated indolines**

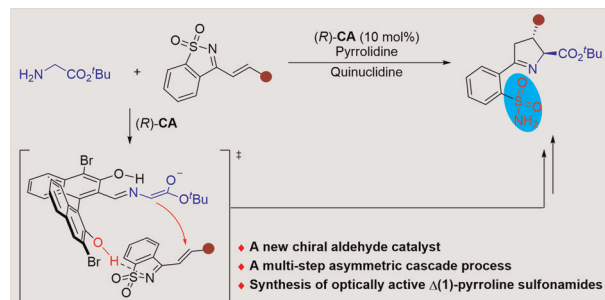
Yongchan Jian, Fei Wen, Jianping Shang, Xiaolong Li, Zhenyu Liu, Yuanyuan An\* and Yubin Wang\*



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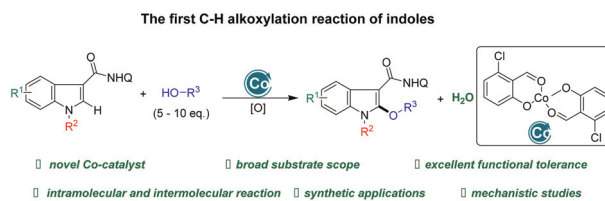
Wei Wen,\* Zhao-Pin Ai, Zhu-Lian Wu, Tian Cai and Qi-Xiang Guo\*



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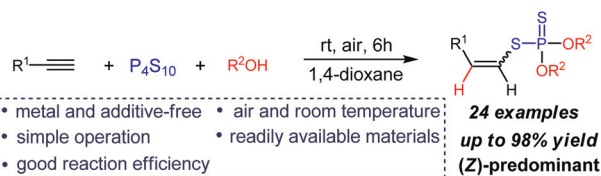
**Rapid modular synthesis of indole ethers via dehydrogenative cross-coupling reaction of indoles and alcohols**

Mao-Gui Huang, Xiao-Hong Chen, Hai-Bing Xu and Yue-Jin Liu\*



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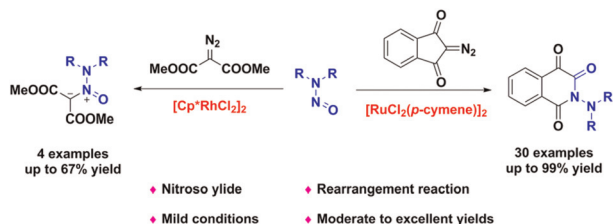
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### Metal-free hydrophosphorodithiolation of alkynes with $P_4S_{10}$ and alcohols leading to vinyl phosphorodithioates

Chengming Qu, Yalu Wang, Yufen Lv, Huilan Yue, Wei Wei\* and Dong Yi\*

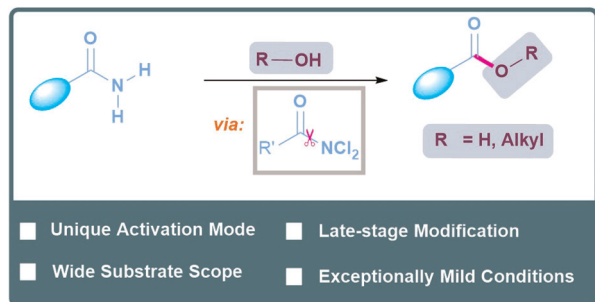
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### Transition-metal catalyzed reactions of diazo compounds and *N,N*-dialkylnitrosoamines

Yuan Chen, Rui-jun Peng, Xue-jing Zhang and Ming Yan\*

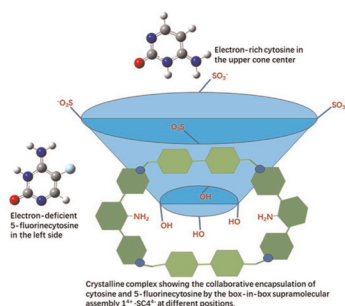
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### Interception of $RCONCl_2$ : late-stage hydrolysis and esterification of primary amides

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### A box-in-box supramolecular assembly for the highly selective recognition of natural, epigenetically and chemically modified cytosines in water

Shu-Qin Qin, Wei Xu, Qi-Qi Wang, Run-Yi Chen, De-Zhi Yang, Yang Lu, Wen-Cai Ye\* and Ren-Wang Jiang\*

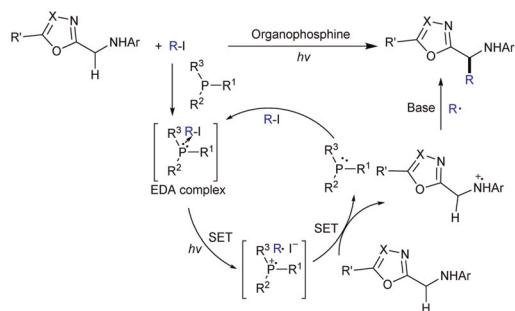


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### Visible-light-driven C(sp<sup>3</sup>)-H alkylation of heterobenzylic amines via electron donor-acceptor complexes

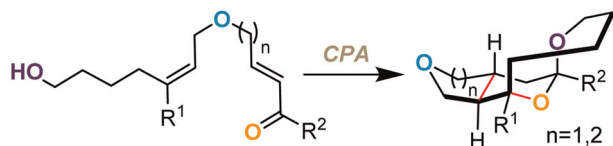
Yumei Huo, Beibei Chen, Zhaoqing Xu,\* Xiaoyu Ren,\* Rupeng Qi and Chao Wang\*



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### Chiral phosphoric acid catalyzed enantioselective inverse-electron-demand oxa-Diels-Alder reactions to synthesize chiral tricyclic tetrahydropyran derivatives

Cong-Yun Tang, Jie Wu, Feng-Ting Ji, Fang Tian, Lin Peng\* and Liang-Liang Wang\*



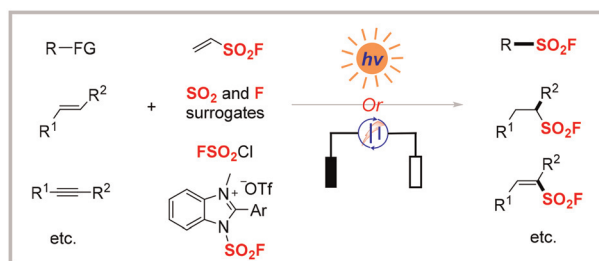
34 examples, dr > 20:1, up to 95% yield, up to 99% ee,

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### Recent advances in photochemical and electrochemical strategies for the synthesis of sulfonyl fluorides

Yu Zheng,\* Wenguang Lu, Tianting Ma and Shenlin Huang\*



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### Straight-chain ω-amino-α,β-unsaturated carbonyl compounds: versatile synthons for the synthesis of nitrogen-containing heterocycles via organocatalytic reactions

Shuhui Li, Xiaoxuan Li, Hui Yao,\* Mengting Tan, Dan Xu, Nianyu Huang\* and Nengzhong Wang\*

