

# Organic & Biomolecular Chemistry

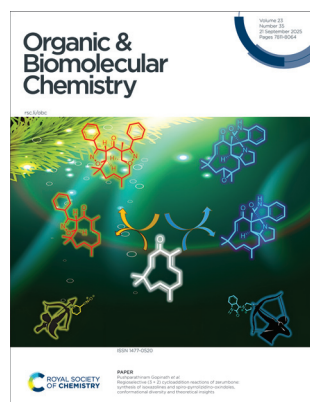
An international journal of synthetic, physical and biomolecular organic chemistry

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## IN THIS ISSUE

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### Cover

See Pushparathinam Gopinath *et al.*, pp. 7956–7961.

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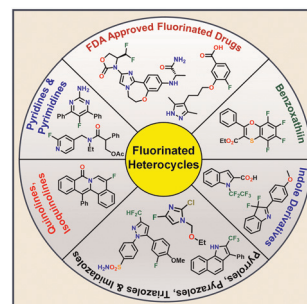
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## REVIEWS

7821

### Recent advances in the synthesis of fluorinated heterocycles and a review of recent FDA-approved fluorinated drugs

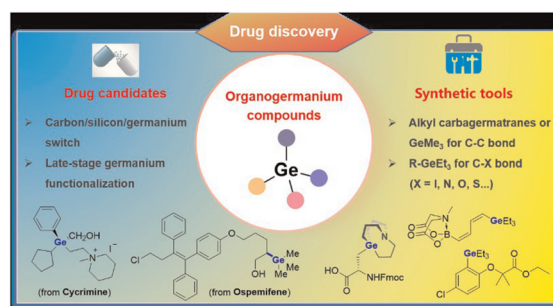
Sayan Mukherjee, Ujala Rani, Girish Chandra\* and Shantanu Pal\*



7852

### Recently developed organogermanium(IV) compounds as drug candidates and synthetic tools in drug discovery

Meng-Yu Xu, Nan Li and Bin Xiao\*



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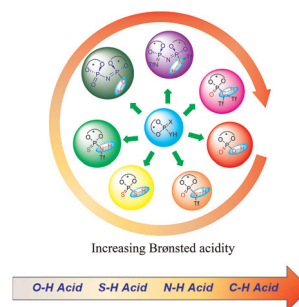
**Fundamental questions  
Elemental answers**

## REVIEWS

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### Recent advances in chiral phosphoric acids for asymmetric organocatalysis: a catalyst design perspective

Peng-Fei Zhao, Ke Wang, Jia-Xu Wen, Zhang-Mei-Duo Zhu, Hua Zhang, Zi-Heng Wang, Yu-Xin Liao, Chao-Shan Da\* and Zhi-Hong Du\*

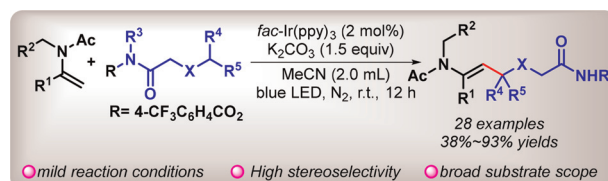


## COMMUNICATIONS

7914

### Photocatalytic remote alkenylation of hydroxamides with enamides: synthesis of trisubstituted enamides via a radical pathway

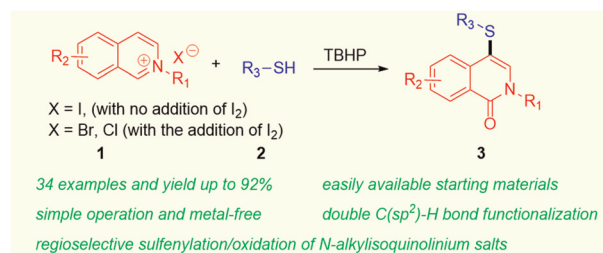
Yu-Ting Wang, Xiao Zou, Peng-Cheng Xu, Dai-Xiang Chen, Yue Zhang,\* Sheng-Hu Yan\* and Hang-Dong Zuo\*



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### Synthesis of 4-(arythio)isoquinolin-1(2H)-ones via TBHP-mediated sequential amidation/thioetherification of N-alkylisoquinolinium salts

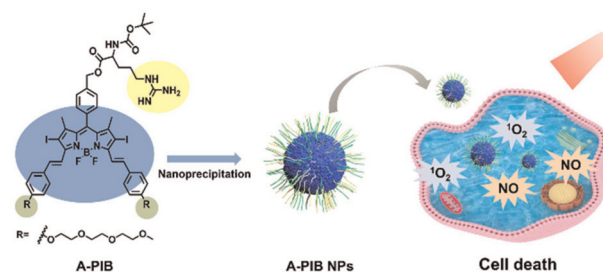
Chuanquan Chu, Jinhui Peng, Lijuan Jin, Yilin Chen, Dahan Wang,\* Jinbing Liu, Junyuan Tang, Zi Yang,\* Mingming Yu and Jinhui Cai\*



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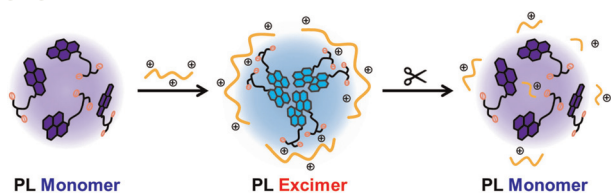
### A carrier-free nano-photosensitizer for red light-activated NO release and combination therapy

Chaonan Li, Huixuan Qi, Jinjun Jia, Qingxia Lin\* and Wenhai Lin\*



## COMMUNICATIONS

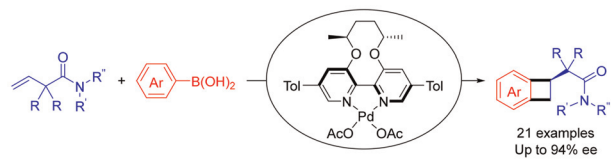
7929



### A highly sensitive fluorogenic assay for trypsin in urine: a simple diagnostic approach for pancreatic diseases

Jaemin Lim, Hyeonjeong Seong and Seoung Ho Lee\*

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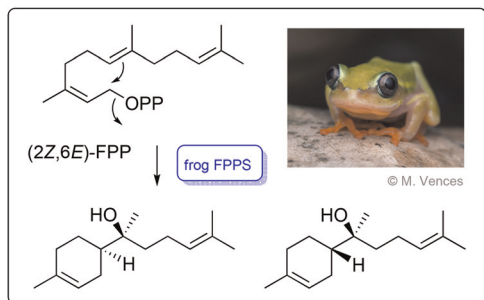


- ◆ Synthesis of Axially Chiral 5,5'-Substituted 2,2'-Bipyridine Ligands
- ◆ Application in Pd-Catalyzed Asymmetric Oxidative [2+2] Annulation

### Synthesis of axially chiral 5,5'-substituted 2,2'-bipyridine ligands and their application in palladium-catalyzed asymmetric oxidative [2 + 2] annulation

Kai Xue, Jian Chen, Yu-Qing Bai, Bo Wu\* and Yong-Gui Zhou\*

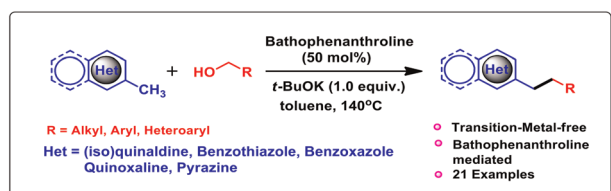
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### Frog farnesyl pyrophosphatases and their role as non-canonical terpene synthases for bisabolane sesquiterpenes

Kexin Yang, Houchao Xu, Miguel Vences, Andolalao Rakotoarison, Stefan Schulz and Jeroen S. Dickschat\*

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### Bathophenanthroline-promoted C(sp<sup>3</sup>)-H alkylation of N-heteroarenes using alcohols: a practical approach

Velayudham Sankar, Radhakrishnan Sakthiganapathi, Akanksha Singh Baghel, Bitragunta Sivakumar\* and Subramaniyan Mannathan\*

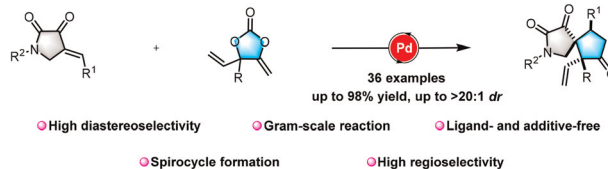


## COMMUNICATIONS

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### Highly regio- and diastereoselective construction of spirocyclic compounds via palladium-catalyzed [3 + 2] cycloaddition of vinyl methylene cyclic carbonates with pyrrolidinones

Huizhi Liu, Jiayi Zong, Boxuan Zhang, JiaHao Wang, Guohui Zheng, Miaolin Ke\* and Fener Chen\*

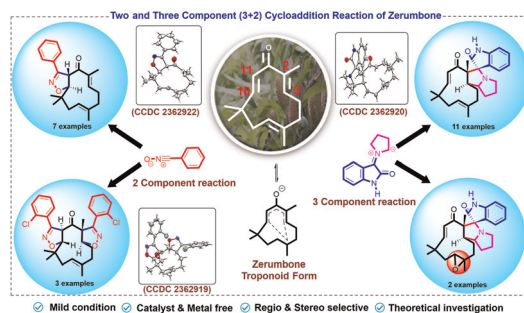


## PAPERS

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### Regioselective (3 + 2) cycloaddition reactions of zerumbone: synthesis of isoxazolines and spiro-pyrrolizidino-oxindoles, conformational diversity and theoretical insights

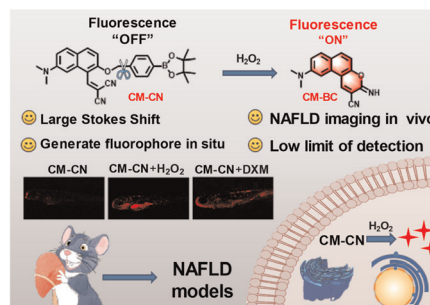
Nandha Kumar Murthi, Naga Venkateswara Rao Nulakani, Mohamad Akbar Ali, Tanay Kundu and Pushparathinam Gopinath\*



7962

### A self-assembled fluorescent probe for H<sub>2</sub>O<sub>2</sub> detection in NAFLD diagnosis

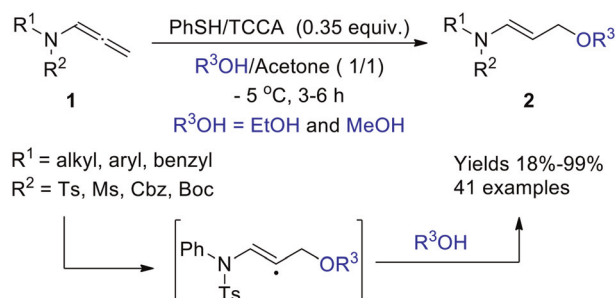
Mengzhao Zhang, Junlei Hao, Chengcheng Wu, Suntao Shi, Zhengyu Ma, Xiaowen Ren, Fei Han, Jiang Wu, Haijuan Zhang\* and Baoxin Zhang\*



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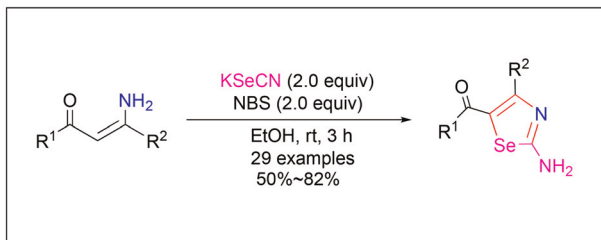
### TCCA/PhSH-mediated regioselective hydroethoxylation and hydromethoxylation of allenamides via a radical process

Qingsong Liu, Gele Jiri, Xingyao She, Zhigang Zhao and Xiaoxiao Li\*



## PAPERS

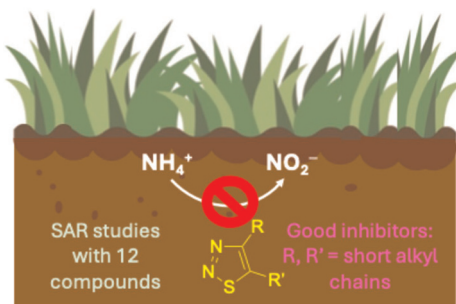
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### NBS-mediated C-selenocyanation/cyclization of enaminones with KSeCN: a mild and efficient synthesis of 2-aminoselenazoles

Fei Yuan, Yi-Yuan Xin, Cai-Feng Yuan, Zhuo Chen, Tong-Ling Qin, Wen-Xia Hu, Jia-Huan Duan and E Tang\*

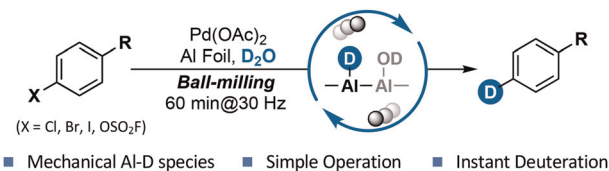
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### Structure–activity relationship study of substituted 1,2,3-thiadiazoles as novel nitrification inhibitors for agriculture

Parvinder Kaur Sidhu, Yue Ming and Uta Wille\*

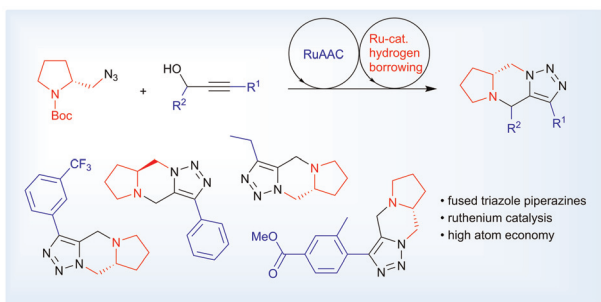
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### Mechanochemical deutero-dehalogenation of aryl halides and fluorosulfates with activated aluminum

Si-Han Xu, Jia Chen,\* Linwei Wang, Si-Qi Li, Jian-Fei Bai, Jingbo Yu, Zhanghua Gao\* and Zhi-Jiang Jiang\*

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### Ruthenium-catalyzed synthesis of tricyclic 1,5-fused 1,2,3-triazole piperazines

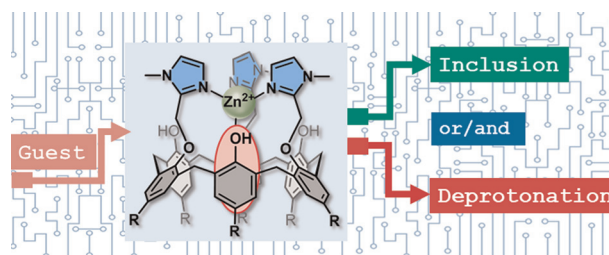
Anna Said Stålsmeden, Flavia Ferrara, Andreas Ekebergh, Maureen Gumbo, August Runemark, Johan R. Johansson, Per-Ola Norrby and Nina Kann\*



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### Interplay between molecular recognition and acid–base reactivity in tailored metal-based calix [6]arene receptors

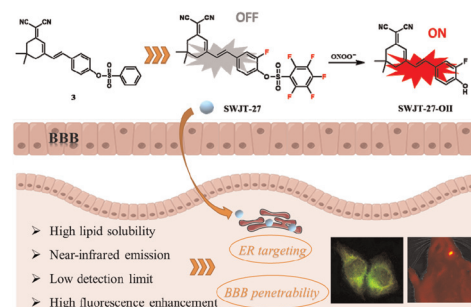
Martin Lepeintre, Aleksandar Višnjevac, Ivan Jabin\* and Benoit Colasson\*



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### A high lipid-soluble probe for ONOO<sup>-</sup> recognition in the endoplasmic reticulum and imaging of cerebral ischemia-reperfusion injury

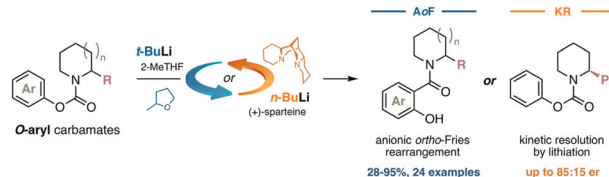
Yu-An Feng, Zi-Hao Liu, Wei Du, Ya-Wen Wang\* and Yu Peng\*



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### O-Aryl carbamates of 2-substituted piperidines: anionic Fries rearrangement and kinetic resolution by lithiation

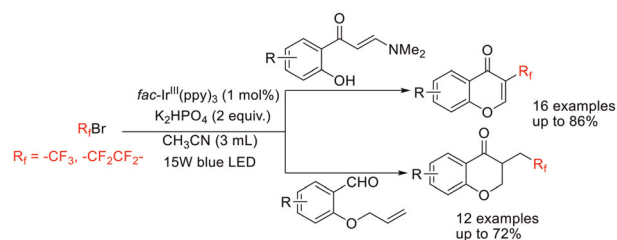
Francesco Marra, Fabrizio Morelli, Federica De Nardi, Emanuele Priola, Iain Coldham\* and Marco Blangetti\*



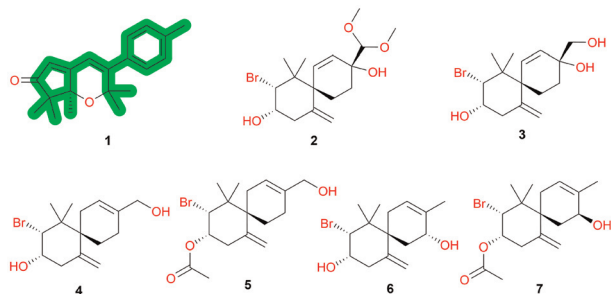
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### Visible-light-promoted tandem radical fluoroalkylation/cyclization to access fluoroalkyl-containing chromones/chroman-4-ones

Yuanyuan Ren, Yuxiu Zhou, Xiaona Pan, Ke-Hu Wang, Junjiao Wang, Danfeng Huang\* and Yulai Hu\*



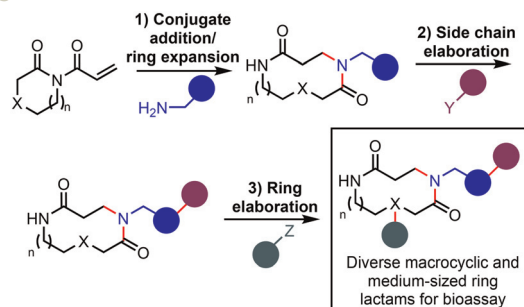
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### A novel diterpene and six new sesquiterpenes from the sea hare *Aplysia dactylomela*

Pham Thanh Binh, Duong Thu Trang, Kieu Thi Phuong Linh, Nguyen Phuong Thao, Nguyen Chi Mai, Tran My Linh, Dang Vu Luong, Nguyen Hoai Nam\* and Nguyen Van Thanh\*

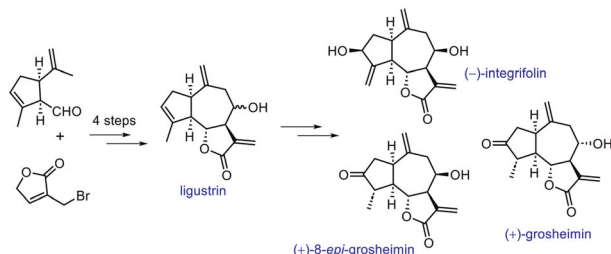
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### Synthesis of a macrocyclic and medium-sized ring lactam library using cascade ring expansion reactions

Selin Yilmaz, Haimei Zhou, Çağrı Özsan, Angelo Frei, Peter O'Brien and William P. Unsworth\*

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### Protecting-group-free total syntheses of (-)-integrifolin, (+)-8-*epi*-grosheimin and (+)-grosheimin

Rodney A. Fernandes,\* Dnyaneshwar A. Gorge and Gujjula V. Ramakrishna

