### **Angewandte Chemie International Edition**

### Synthesis of Cyclopropenols Enabled by Visible-Light-Induced Organocatalyzed [2+1] Cyclization

Gang Zhou, Xiao Shen

Angew. Chem. Int. Ed. 2022, 61, e202115334

# Photoredox-Catalyzed Defluorinative Functionalizations of Polyfluorinated Aliphatic Amides and Esters

Dr. Jian-Heng Ye, Peter Bellotti, Corinna Heusel, Prof. Dr. Frank Glorius

Angew. Chem. Int. Ed. 2022, 61, e202115456

12 examples yield up to 90%

#### **Chinese Chemical Letters**

## Iron-catalyzed cyanoalkylation of difluoroenol silyl ethers with cyclobutanone oxime esters

Xiaolei Zhu, Yangen Huang, Xiuhua Xu, Fengling Qing

Chinese Chemical Letters, 2022, 33, 817-820

OTMS
$$R + V = P-CF_3C_6H_4)$$
Fe(OAc)<sub>2</sub>

$$(10 \text{ mol}\%)$$

$$DCE, 100 °C$$

$$R + F$$

$$X = CN$$

12 examples yield up to 89%

# The Pd-catalyzed synthesis of difluoroethyl and difluorovinyl compounds with a chlorodifluoroethyl iodonium salt (CDFI)

Yaru Niu, Chengyao Kimmy Cao, Chenxin Ge, Hongmei Qu, Chao Chen

Chinese Chemical Letters, 2022, 33, 1541-1544

# Metal-free $C(sp^2)$ -H perfluoroalkylsulfonylation and configuration inversion: Stereoselective synthesis of $\alpha$ -perfluoroalkylsulfonyl E-enaminones

Qing Yu, Yunyun Liu, Jie-Ping Wan

**Chinese Chemical Letters, 2021, 32, 3514-3517** 

33 examples yield up to 83%

### **Chinese Journal of Chemistry**

# Efficient Decarboxylative/Defluorinative Alkylation for the Synthesis of gem-Difluoroalkenes through an S<sub>N</sub>2'-Type Route

Wei-Long Xing, Jia-Xin Wang, Ming-Chen Fu, Yao Fu

Chin. J. Chem., 2022, 40, 323-328

12 examples yield up to 89%

### **Organic Chemistry Frontiers**

Silver-catalyzed decarboxylative radical relay difluoroalkylation—carbocyclization: convenient access to CF<sub>2</sub>-containing quinolinones

Feng Zhao, Sa Guo, Yan Zhang, Ting Sun, Bing Yang, Yong Yec and Kai Sun

Org. Chem. Front., 2021, 8, 6895-6900

15 examples yield up to 82%

#### **Tetrahedron**

## Electrochemical fluorosulfonylation of alkenes to access vicinal fluorinated sulfones derivatives

Bin Zhao, Zichen Pan, Angiao Zhu, Yanni Yue, Mengtao Ma, Fei Xue

Tetrahedron, 2022, 106-107, 132651

NH<sub>2</sub>NHSO<sub>2</sub>R<sup>2</sup> + Et<sub>3</sub>N•HF 
$$\frac{\text{GFO} \text{I} = 12 \text{ mA} \text{ Ni}}{{}^{n}\text{Bu}_{4}\text{NBF}_{4}, \text{ CH}_{3}\text{CN}}$$
undivided cell, rt, 1.5 h

37 examples yield up to 95%

### **Organic Letters**

# Photoredox-Catalyzed Synthesis of Remote Fluoroalkylated Azaarene Derivatives and the α-Deuterated Analogues via 1,*n*-Hydrogen-Atom-Transfer-Involving Radical Reactions

Xiaowei Chen, Wenhui Wei, Chunyang Li, Hongwei Zhou, Baokun Qiao, and Zhiyong Jiang

Org. Lett., 2021, 23, 8744-8749

37 examples yield up to 98%

## Rapid Access to Fluorinated Anilides via DAST-Mediated Deoxyfluorination of Arylhydroxylamines

Zhuyong Zhang, Junfei Luo, and Hongyin Gao

Org. Lett., 2021, 23, 9332-9336

$$\begin{array}{c} PG \\ X \\ Y \end{array} OH \\ \hline \begin{array}{c} CHCl_3, \ 0^{\circ}C, \ N_2, \ 1 \ h \end{array} \\ X = CH, \ N \end{array} \qquad \begin{array}{c} PG \\ X \\ Y \neq H \end{array} \qquad \begin{array}{c} X \\ Y = H \end{array}$$

41 examples yield up to 84%

# α-Trifluoromethyl Carbanion-catalyzed Intermolecular Stetter Reaction of Aromatic Aldehydes with 2-Bromo-3,3,3-trifluoropropene: Synthesis of β-Alkoxyl-β-trifluoromethylated Ketones

Yingying Cai, Huanfeng Jiang, and Chuanle Zhu

Org. Lett., 2022, 24, 33-37

30 examples yield up to 91%

# Synthesis of ArCF<sub>2</sub>X and [<sup>18</sup>F]Ar-CF<sub>3</sub> via Cleavage of the Trifluoromethylsulfonyl Group

Ren-Yin Yang, Xinyan Gao, Kehao Gong, Juan Wang, Xiaojun Zeng, Mingwei Wang, Junbin Han, and Bo Xu

Org. Lett., 2022, 24, 164-168

14 examples yield up to 93%

### Vicinal Difunctionalization of Alkenes Using Vinyl Triflates Leading to γ-Trifluoromethylated Ketones

Takuji Kawamoto, Takahiro Kawabata, Kohki Noguchi, and Akio Kamimura

Org. Lett., 2022, 24, 324-327

8 examples yield up to 76%

### Construction of Fluorinated Amino Acid Derivatives via Cobalt-Catalyzed Oxidative Difunctionalization of Cyclic Ethers

Peng Duan, He Zhao, Jian Yang, Liang Cao, Huanfeng Jiang, and Min Zhang Org. Lett., 2022, 24, 608-612

55 examples yield up to 96%