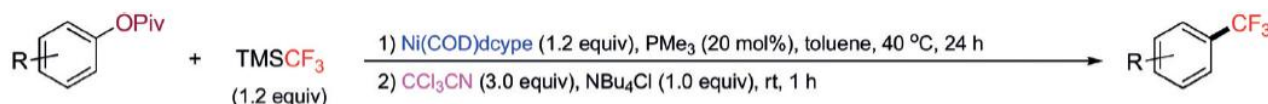


# Angewandte Chemie

## Nickel-Mediated Trifluoromethylation of Phenol Derivatives by Aryl C–O Bond Activation

Wei-Qiang Hu, Dr. Shen Pan, Dr. Xiu-Hua Xu, Prof. Dr. David A. Vicić, Prof. Dr. Feng-Ling Qing

Angew. Chem. Int. Ed., 2020, 59, 16076-16082

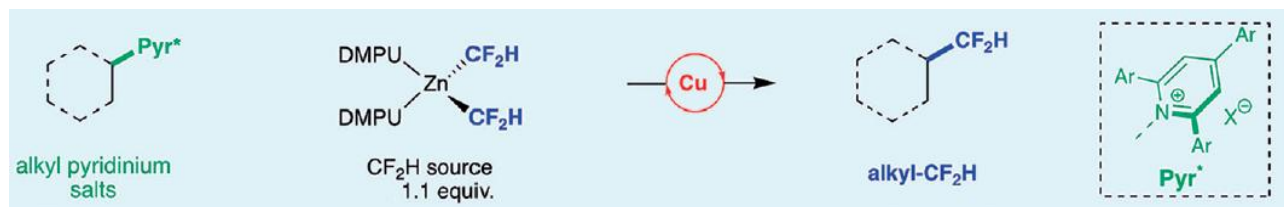


36 examples  
yield up to 93%

## Copper-Catalyzed Deaminative Difluoromethylation

Xiaojun Zeng, Wenhao Yan, Samson B. Zacate, Aijie Cai, Yufei Wang, Dongqi Yang, Kundi Yang, Wei Liu

Angew. Chem. Int. Ed., 2020, 59, 16398-16403

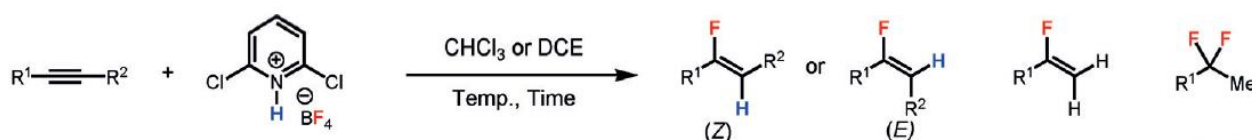


57 examples  
yield up to 93%

## Stereodivergent Alkyne Hydrofluorination Using Protic Tetrafluoroborates as Tunable Reagents

Dr. Rui Guo, Dr. Xiaotian Qi, Hengye Xiang, Paul Geaneotes, Ruihan Wang, Prof. Dr. Peng Liu, Prof. Dr. Yi-Ming Wang

Angew. Chem. Int. Ed., 2020, 59, 16651-16660



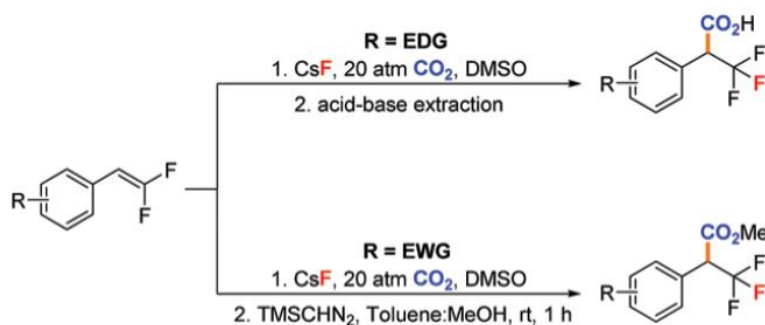
82 examples  
yield up to 79%

## Chemical Communications

### Recent advances in three-component difunctionalization of *gem*-difluoroalkenes

Chi Liu, Hao Zeng, Chuanle Zhu and Huanfeng Jiang

Chem. Commun., 2020,56, 10442-10452



22 examples  
yield up to 99%

## Green Chemistry

### Visible-light-promoted photocatalyst- and additive-free intermolecular trifluoromethyl-thio(seleno)cyanation of alkenes†

Maheshwara Reddy Nadiveedhi, Suresh Reddy Cirandur and Srirama Murthy Akondi

Green Chem., 2020, 22, 5589-5593



26 examples  
yield up to 93%

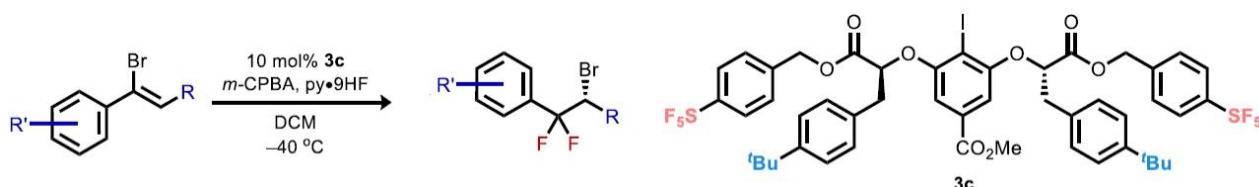


8 examples  
yield up to 61%

## Catalytic Enantioselective Synthesis of Difluorinated Alkyl Bromides

Mark D. Levin, John M. Ovian, Jacquelyne A. Read, Matthew S. Sigman,  
and Eric N. Jacobsen

J. Am. Chem. Soc., 2020, 142, 14831-14837

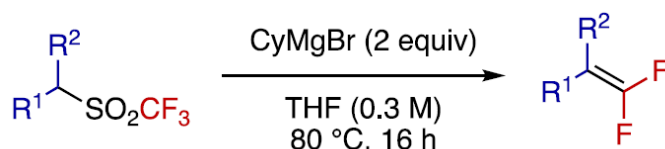


20 examples  
yield up to 93%

## Alkyltriflones in the Ramberg–Bäcklund Reaction: An Efficient and Modular Synthesis of gem-Difluoroalkenes

Yuuki Maekawa, Masakazu Nambo, Daisuke Yokogawa, and Cathleen M. Crudden

J. Am. Chem. Soc., 2020, 142, 15667-15672

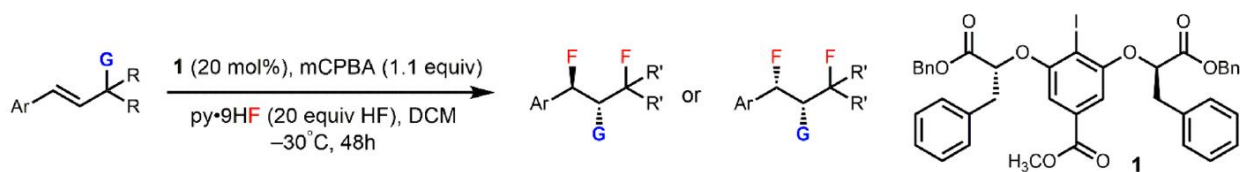


20 examples  
yield up to 97%

## Enantioselective Aryl-Iodide-Catalyzed Wagner–Meerwein Rearrangements

Hayden A. Sharma, Katrina M. Mennie, Eugene E. Kwan, and Eric N. Jacobsen

J. Am. Chem. Soc., 2020, 142, 16090-16096

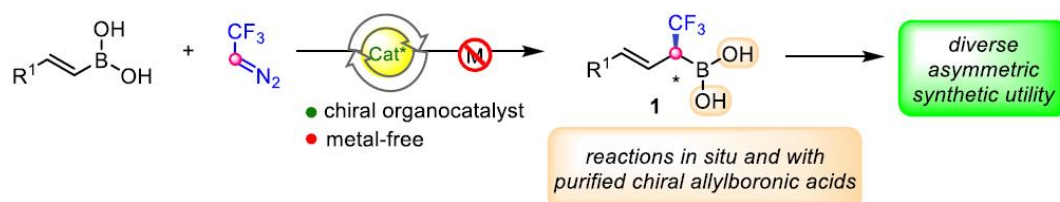


17 examples  
yield up to 93%

# Organocatalytic Synthesis of $\alpha$ -Trifluoromethyl Allylboronic Acids by Enantioselective 1,2-Borotropic Migration

Sybrand J. T. Jonker, Ramasamy Jayarajan, Tautvydas Kireilis, Marie Deliaval, Lars Eriksson, and Kálmán J. Szabó

J. Am. Chem. Soc., 2020, 142, 21254-21259

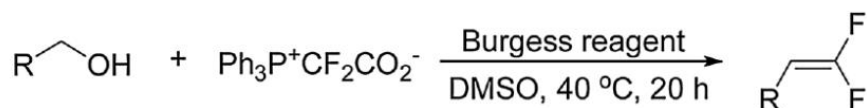


## Journal of Fluorine Chemistry

### A one-step synthesis of gem-difluoroolefins from alcohols

Xuan Xiao, Xu Yao, Jiao Yu, Ting Tang, Can Xiao, Jinying Gu, Jin-Hong Lin, Xing Zheng, Ji-Chang Xiao

J. Fluorine Chem., 2020, 240, 109649



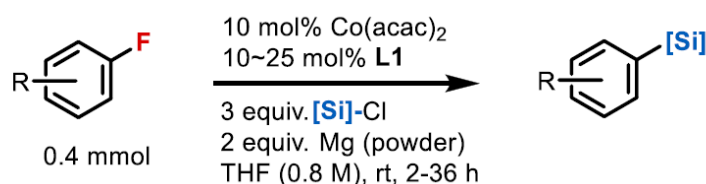
14 examples  
yield up to 93%

## Organic Letters

### Cobalt-Catalyzed Defluorosilylation of Aryl Fluorides via Grignard Reagent Formation

Soobin Lim, Hyungdo Cho, Jongheon Jeong, Minjae Jang, Hyunseok Kim, Seung Hwan Cho, and Eunsung Lee

Org. Lett., 2020, 22, 7387-7392

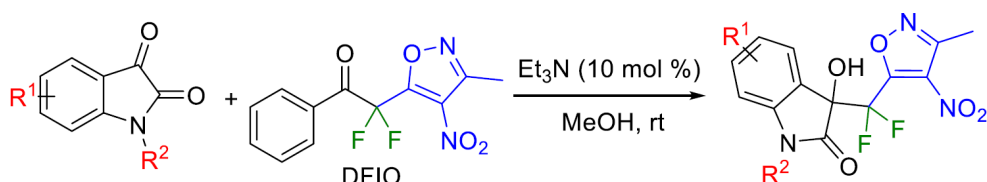


26 examples  
yield up to 96%

## Difluoroisoxazolacetophenone: A Difluoroalkylation Reagent for Organocatalytic Vinylogous Nitroaldol Reactions of 1,2-Diketones

Yong Zhang, Jin Ge, Liang Luo, Su-Qiong Yan, Guo-Wei Lai, Zu-Qin Mei, Hai-Qing Luo,  
and Xiao-Lin Fan

Org. Lett., 2020, 22, 7952-7957

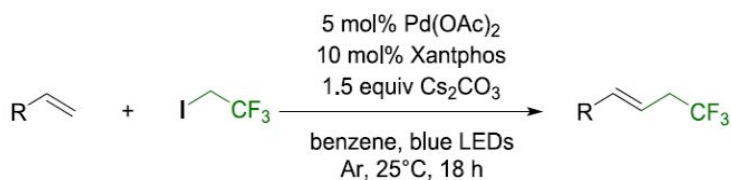


23 examples  
yield up to 99%

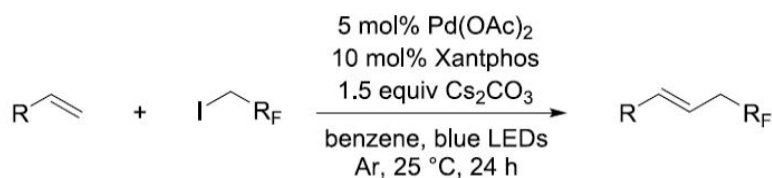
## Photocatalytic Palladium-Catalyzed Fluoroalkylation of Styrene Derivatives

Réka Adamik, Tamás Földesi, and Zoltán Novák

Org. Lett., 2020, 22, 8091-8095



23 examples  
yield up to 86%

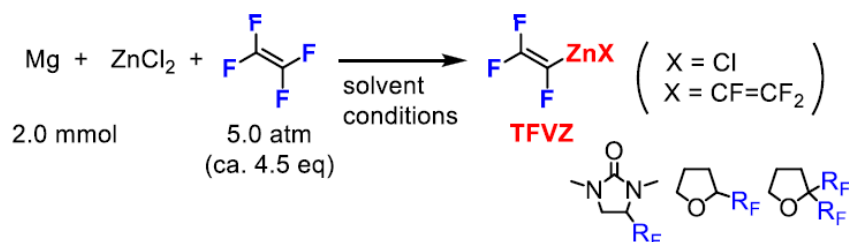


22 examples  
yield up to 86%

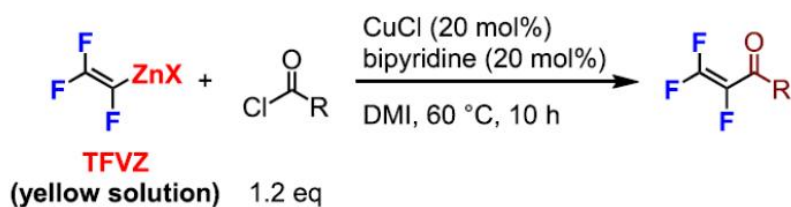
# Direct Transformation of Tetrafluoroethylene to Trifluorovinylzinc via $sp^2$ C–F Bond Activation

Kotaro Kikushima, Yuusuke Etou, Ryohei Kamura, Ippei Takeda, Hideki Ito, Masato Ohashi, and Sensuke Ogoshi

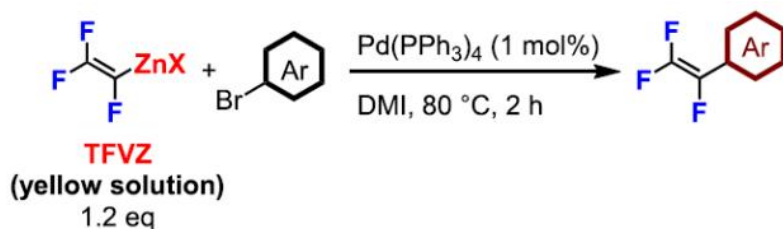
Org. Lett., 2020, 22, 8167-8172



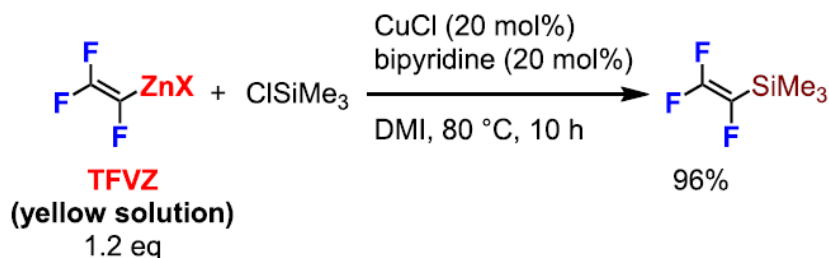
9 examples  
yield up to 74%



6 examples  
yield up to 99%



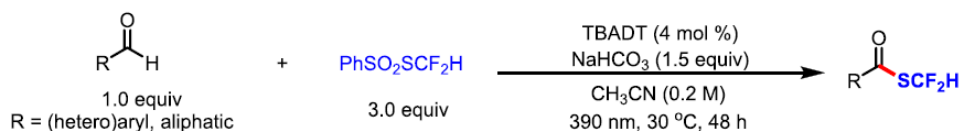
8 examples  
yield up to 99%



## Light-Mediated Difluoromethylthiolation of Aldehydes with a Hydrogen Atom Transfer Photocatalyst

Jiayang Dong, Fuyang Yue, Xiaochen Wang, Hongjian Song, Yuxiu Liu, and Qingmin Wang

Org. Lett., 2020, 22, 8272-8277

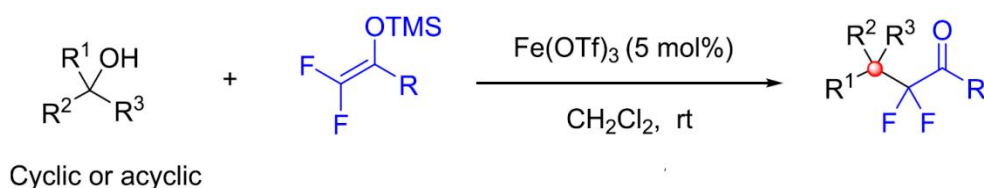


35 examples  
yield up to 86%

## Construction of $\beta$ -Quaternary $\alpha,\alpha$ -Difluoroketones via Catalytic Nucleophilic Substitution of Tertiary Alcohols with Difluoroenoxy silanes

Yong-Jia Hao, Yi Gong, Ying Zhou, Jian Zhou, and Jin-Sheng Yu

Org. Lett., 2020, 22, 8516-8521

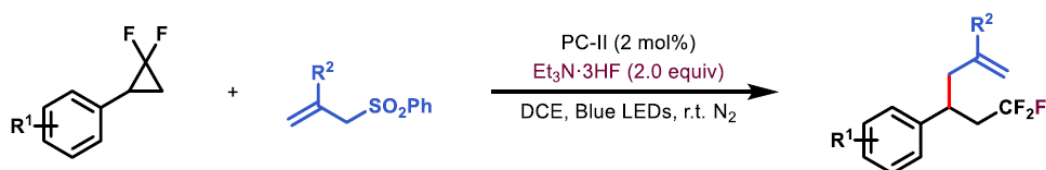


25 examples  
yield up to 98%

## Visible-Light-Promoted Regioselective 1,3-Fluoroallylation of *gem*-Difluorocyclopropanes

Haidong Liu, Yi Li, Ding-Xing Wang, Meng-Meng Sun, and Chao Feng

Org. Lett., 2020, 22, 8681-8686

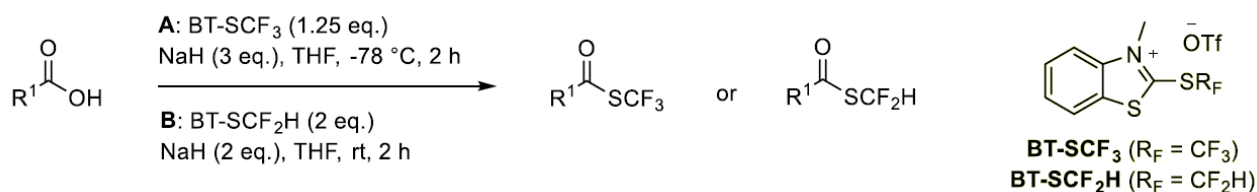


31 examples  
yield up to 74%

# Deoxygenative Tri- and Difluoromethylthiolation of Carboxylic Acids with Benzothiazolium Reagents

Matteo Tironi, Lilian M. Maas, Arushi Garg, Stefan Dix, Jan P. Götze, and Matthew N. Hopkinson

Org. Lett., 2020, 22, 8925-8930

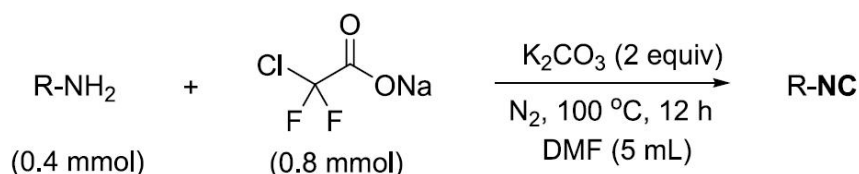


47 examples  
yield up to 99%

# Synthesis of Isocyanides by Reacting Primary Amines with Difluorocarbene

Yi-Xin Si, Peng-Fei Zhu, and Song-Lin Zhang

Org. Lett., 2020, 22, 8925-8930

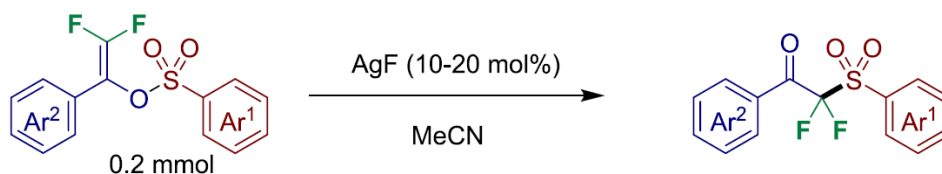


25 examples  
yield up to 90%

# Catalytic AgF-Initiated Intramolecular 1,3-Sulfonyl Migration of gem-Difluorovinyl Sulfonates to $\alpha,\alpha$ -Difluoro- $\beta$ -ketosulfones

Baojian Xiong, Lei Chen, Jie Xu, Haotian Sun, Xiong Li, Yue Li, and Zhong Lian

Org. Lett., 2020, 22, 9263-9268



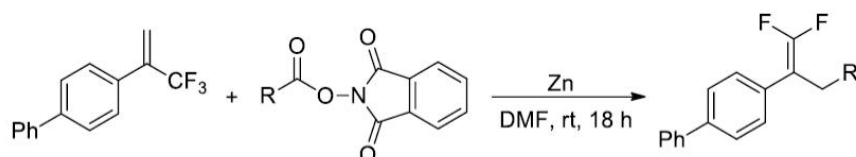
52 examples  
yield up to 98%



## Synthesis of *gem*-Difluoroalkenes via Zn-Mediated Decarboxylative/Defluorinative Cross-Coupling

Hai-Wu Du, Yang Chen, Jing Sun, Qi-Sheng Gao, He Wang, and Ming-Dong Zhou

Org. Lett., 2020, 22, 9342-9345

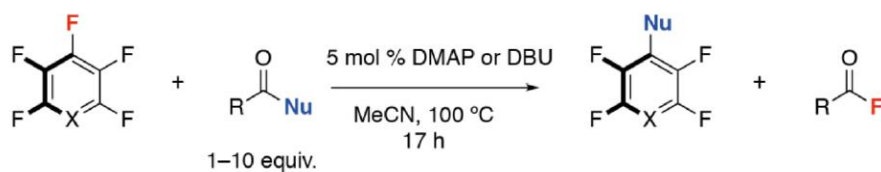


14 examples  
yield up to 96%

## Organocatalyzed Fluoride Metathesis

Daniel Mulryan, Andrew J. P. White, and Mark R. Crimmin

Org. Lett., 2020, 22, 9351-9355



17 examples  
yield up to 94%