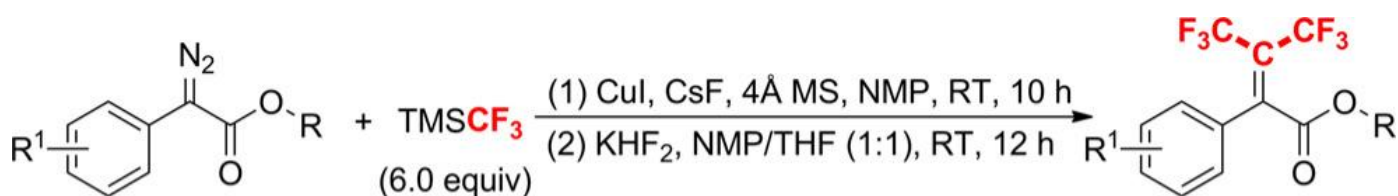


## Angewandte Chemie

### From C<sub>1</sub> to C<sub>3</sub>: Copper-Catalyzed *gem*-Bis(trifluoromethyl)olefination of $\alpha$ -Diazo Esters with TMSCF<sub>3</sub>

Qian Wang, Dr. Chuanfa Ni, Dr. Mingyou Hu, Dr. Qiqiang Xie, Dr. Qinghe Liu, Shitao Pan, Prof. Dr. Jinbo Hu

Angew. Chem. Int. Ed., 2020, 59, 8507-8511



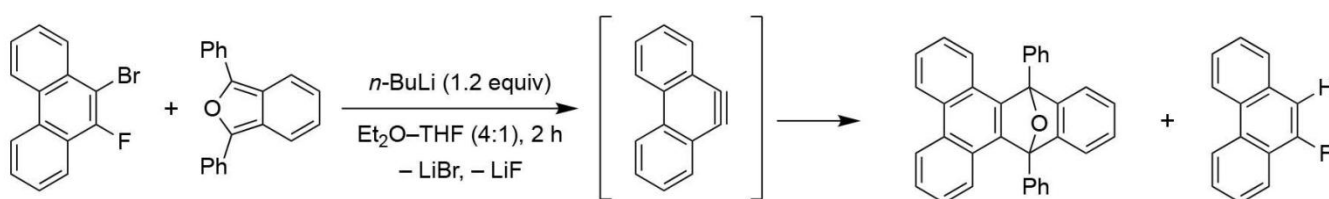
33 examples  
yield up to 81%

## Chemistry An Asian Journal

### Fluorinated Phenanthrenes as Aryne Precursors: PAH Synthesis Based on Domino Ring Assembly Using 1,1-Difluoroallenes

Dr. Kohei Fuchibe Masashi Abe Hiroto Idate Prof. Dr. Junji Ichikawa

Chem. Asian J., 2020, 15, 1384-1392



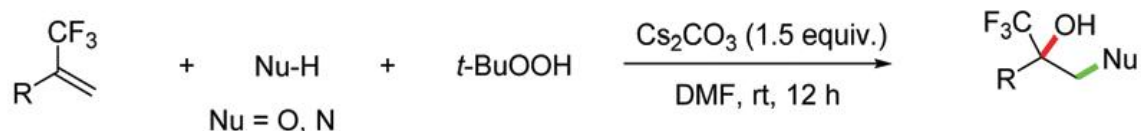
3 examples  
yield up to 84%

## Chemical Communications

### Three component hydroxyletherification and hydroxylazidation of (trifluoromethyl)alkenes: access to $\alpha$ -trifluoromethyl $\beta$ -heteroatom substituted tertiary alcohols

Hao Zeng, Chuanle Zhu, Chi Liu, Yingying Cai, Fulin Chena and Huanfeng Jiang

Chem. Commun., 2020, 56, 6241-6244



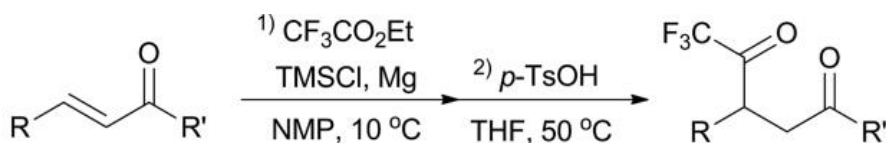
58 examples  
yield up to 95%

## European Journal of Organic Chemistry

### A Simple Protocol from Benzalacetones to 1,1,1-Trifluoro-2,5-diketones and 2-(Trifluoromethyl)furans by Reductive Trifluoroacetylation

Tianyuan Zhang, Chunchao Xie, Hiroto Sakata, Konomi Nakajima, Tatsuya Shimoyama, Tomohiro Watanabe, Hirofumi Maekawa

Eur.J. Org.Chem., 2020, 2237-2243

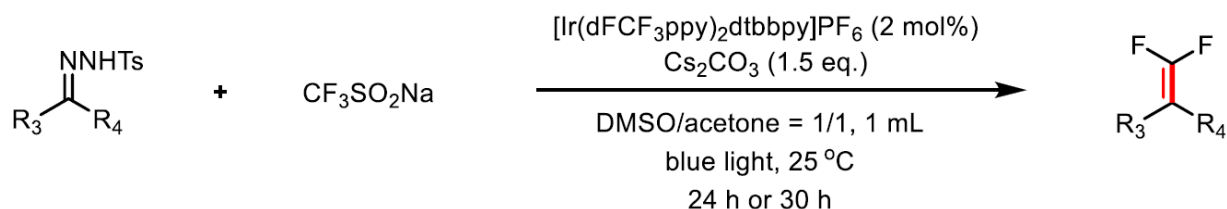


14 examples  
yield up to 90%

Umpolung Difunctionalization of Carbonyls via Visible-Light Photoredox Catalytic Radical-Carbanion Relay

Shun Wang, Bei-Yi Cheng, Matea Sršen, and Burkhard König

J. Am. Chem. Soc., 2020, 142, 7524-7531

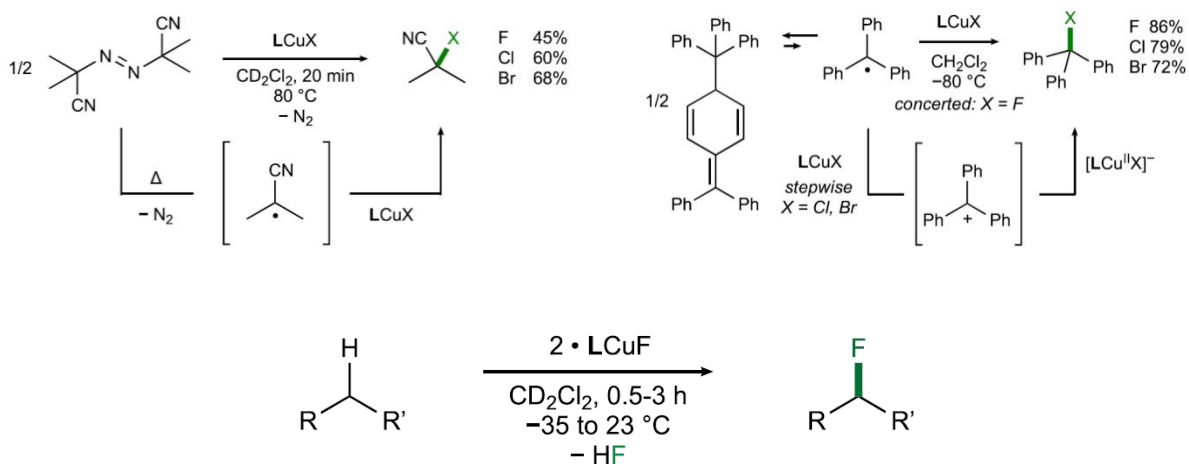


30 examples  
yield up to 87%

C(sp<sup>3</sup>)-H Fluorination with a Copper(II)/(III) Redox Couple

Jamey K. Bower, Andrew D. Cypcar, Brenda Henriquez, S. Chantal E. Stieber, and Shiyu Zhang

J. Am. Chem. Soc., 2020, 142, 8514-8521



7 examples  
yield up to 69%

## Organic Chemistry Frontiers

### Synthesis of $\alpha$ -trifluoromethyl ethanone oximes *via* the three-component reaction of aryl-substituted ethylenes, *tert*-butyl nitrite, and the Langlois reagent

Kui Lu, Xianfu Wei, Quan Li, Yuxuan Li, Liangshuo Ji, Erbing Hua, Yujie Daia and Xia Zhao

Org. Chem. Front, 2019, 6, 3766-3770

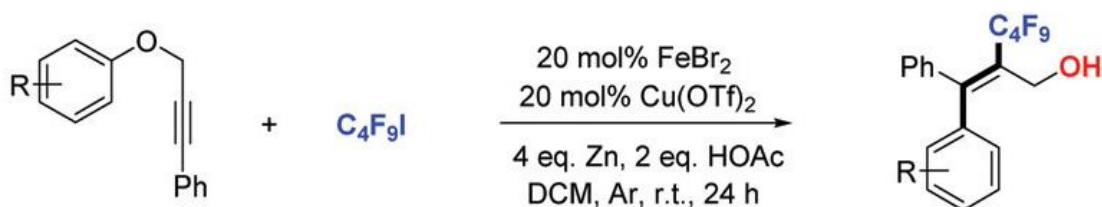


16 examples  
yield up to 73%

### Synthesis of tri-substituted allyl alcohols *via* a copper/iron co-catalyzed cascade perfluoroalkylation/rearrangement of aryl propynyl ethers

Wei He, Jipan Yu, Dawei Wang, Guoxia Rana and Xiao-Feng Xia

Org. Chem. Front, 2019, 6, 3575-3579

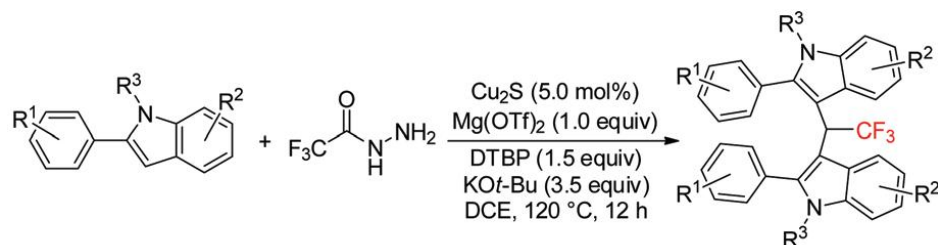


10 examples  
yield up to 63%

## Copper-catalyzed synthesis of trifluoromethylated bis(indolyl)arylmethanes from 2-arylindoles and 2,2,2-trifluoroacetohydrazide

Zihang Yuan, Shouxiong Chen and Zhiqiang Weng

Org. Chem. Front, 2020, 7, 482-486

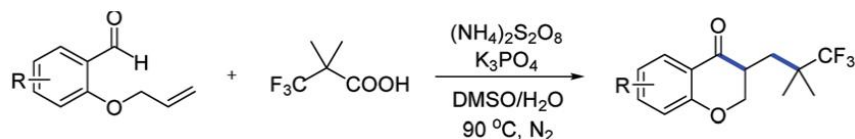


27 examples  
yield up to 99%

## Transition-metal-free synthesis of $\text{CMe}_2\text{CF}_3$ -containing chroman-4-ones via decarboxylative trifluoroalkylation

Miao-Chang Liu, Wei Liu, Hua-Yue Wu, Yun-Bing Zhou, Qiuping Ding and Yiyuan Peng

Org. Chem. Front, 2020, 7, 487-491

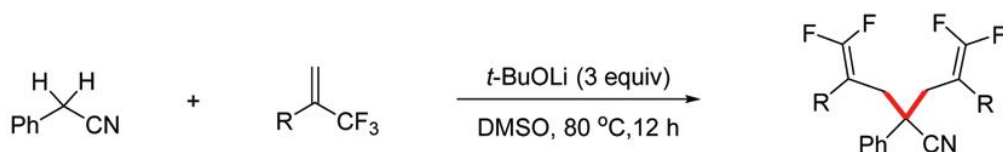


77 examples  
yield up to 69%

## Double allylic defluorinative alkylation of 1,1-bisnucleophiles with (trifluoromethyl)alkenes: construction of all-carbon quaternary centers

Yingying Cai, Hao Zeng, Chuanle Zhu, Chi Liu, Guangying Liua and Huanfeng Jiang

Org. Chem. Front, 2020, 7, 1260-1265

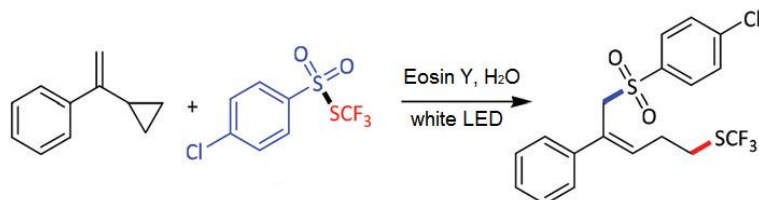


20 examples  
yield up to 77%

## Organocatalytic 1,5-trifluoromethylthio-sulfonylation of vinylcyclopropane mediated by visible light in the water phase

Junkai Liu, Hong Yao, Xinnan Li, Hongyu Wu, Aijun Lin, Hequan Yao, Jinyi Xu and Shengtao Xu

Org. Chem. Front., 2020, 7, 1314-1320

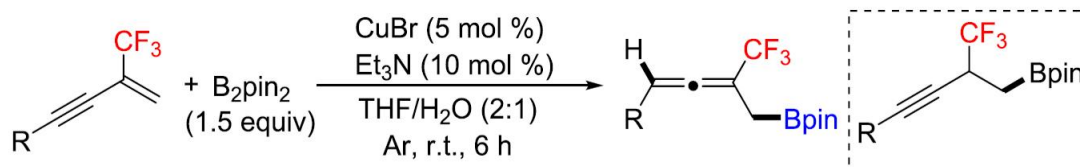


## Organic Letters

### Catalytic Asymmetric Conjugate Protosilylation and Protoborylation of 2-Trifluoromethyl Enynes for Synthesis of Functionalized Allenes

Chao Yang, Zheng-Li Liu, Dong-Ting Dai, Qi Li, Wei-Wei Ma, Meng Zhao, and Yun-He Xu

Org. Lett., 2020, 22, 1360-1367

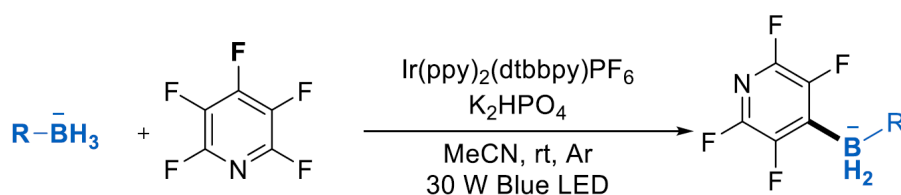


18 examples  
yield up to 97%

### Photocatalytic C–F Bond Borylation of Polyfluoroarenes with NHC-boranes

Peng-Ju Xia, Zhi-Peng Ye, Yuan-Zhuo Hu, Jun-An Xiao, Kai Chen, Hao-Yue Xiang, Xiao-Qing Chen, and Hua Yang

Org. Lett., 2020, 22, 1742-1747

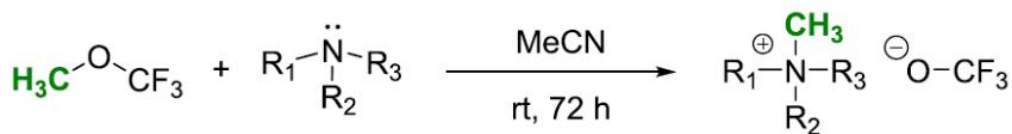


8 examples  
yield up to 93%

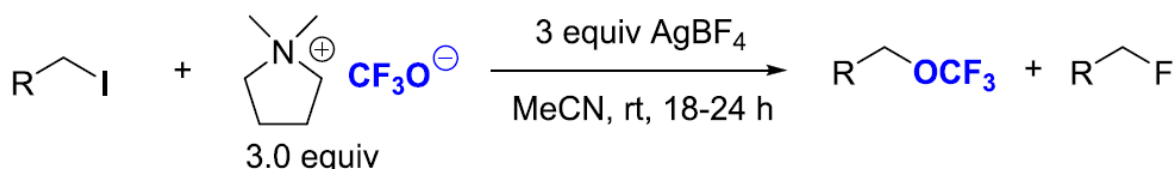
## Quaternary Ammonium Trifluoromethoxide Salts as Stable Sources of Nucleophilic $\text{OCF}_3$

Josiah J. Newton, Benson J. Jelier, Michael Meanwell, Rainer E. Martin, Robert Britton, and Chadron M. Friesen

Org. Lett., 2020, 22, 1785-1790



14 examples  
yield up to 88%

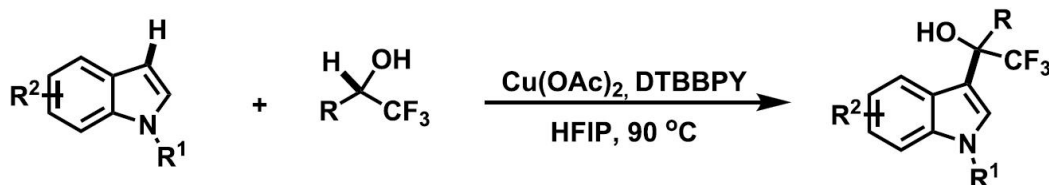


6 examples  
yield up to 79%

## Copper-Catalyzed Functionalization of Aza-Aromatic Rings with Fluoroalcohols via Direct $\text{C}(\text{sp}^2)\text{-H}/\text{C}(\text{sp}^3)\text{-H}$ Coupling Reactions

Jie Chen, Meng Li, Jinli Zhang, Wangbin Sun\*, and Yaojia Jiang\*

Org. Lett., 2020, 22, 3033-3038

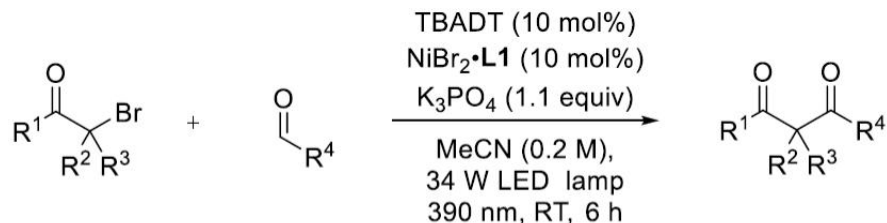


31 examples  
yield up to 98%

## Acylation of Aryl Halides and $\alpha$ -Bromo Acetates with Aldehydes Enabled by Nickel/TBADT Cocatalysis

Pei Fan, Chang Zhang, Linchuan Zhang, and Chuan Wang

Org. Lett., 2020, 222, 3875-3878

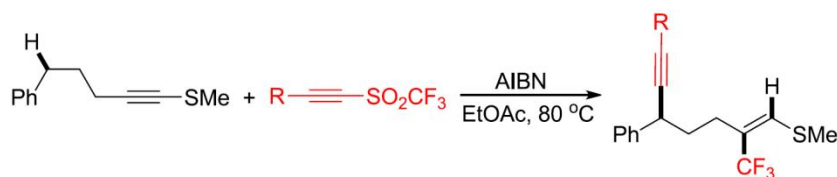


8 examples  
yield up to 62%

## AIBN-Induced Remote Trifluoromethyl-Alkynylation of Thioalkynes

Zhimin Xiong, Fang Zhang, Yongqi Yu, Ze Tan, and Gangguo Zhu

Org. Lett., 2020, 22, 4088-4092

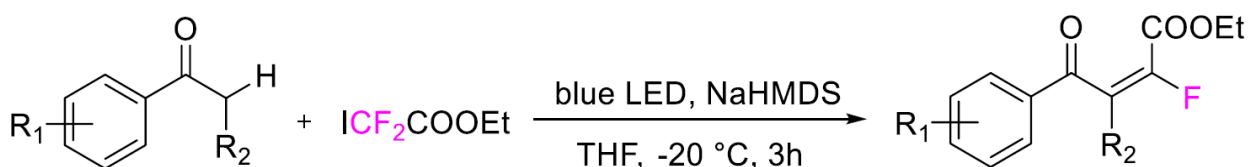


12 examples  
yield up to 76%

## Blue Light Promoted Difluoroalkylation of Aryl Ketones: Synthesis of Quaternary Alkyl Difluorides and Tetrasubstituted Monofluoroalkenes

Kangkui Li, Jingchao Chen\*, Chunhui Yang, Keyang Zhang, Chunxiang Pan, and Baomin Fan

Org. Lett., 2020, 22, 4261-4265



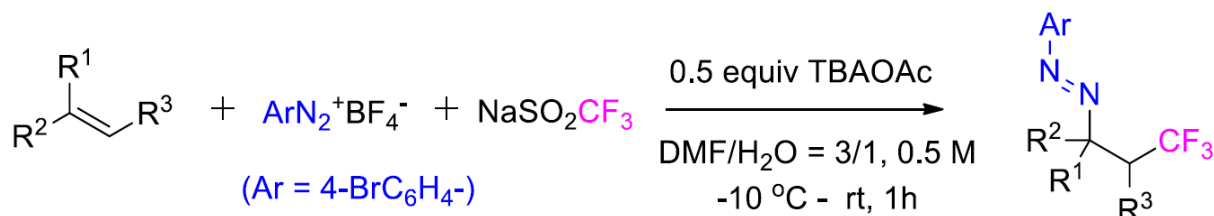
16 examples  
yield up to 85%



## Base-Promoted Radical Azofluoromethylation of Unactivated Alkenes

Zhichao Lu, Olivia Hennis, Joseph Gentry, Bo Xu, and Gerald B. Hammond

Org. Lett., 2020, 22, 4383-4388

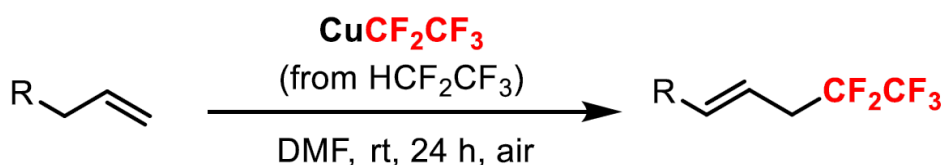
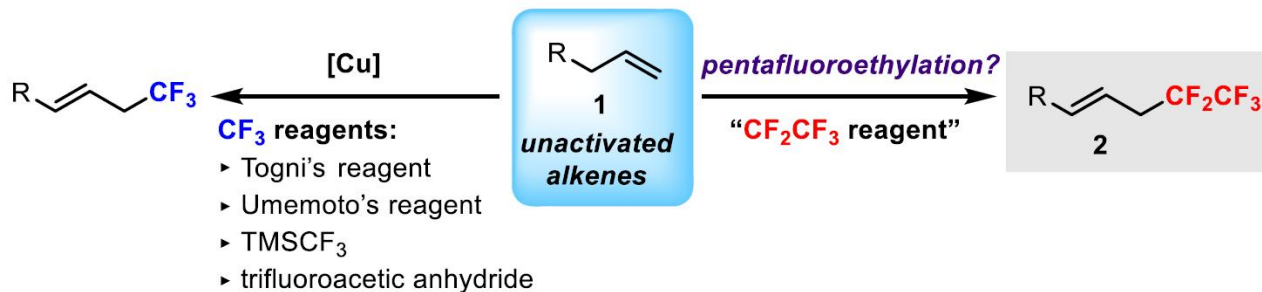


26 examples  
yield up to 85%

## Radical Pentafluoroethylation of Unactivated Alkenes Using CuCF<sub>2</sub>CF<sub>3</sub>

Xinkan Yang and Gavin Chit Tsui

Org. Lett., 2020, 22, 4562-4567



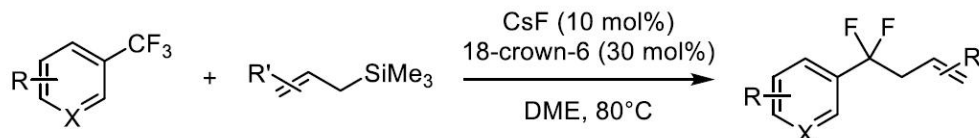
27 examples  
yield up to 85%

# Organic Process Research & Development

## Some Items of Interest to Process R&D Chemists and Engineers

Wenyi Zhao, Sylvain Guizzetti, James A. Schwindeman, David S. B. Daniels, James J. Douglas, Antonio Ramirez, and John Knight

Org. Process Res. Dev., 2019, 23, 2266-2275



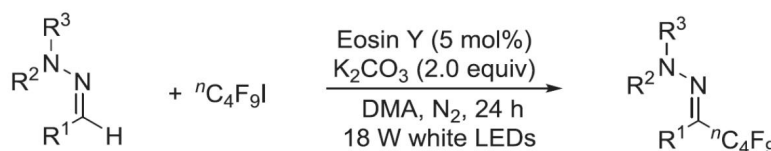
21 examples  
yield up to 91%

## Tetrahedron Letters

### Visible-light-promoted organic dye catalyzed perfluoroalkylation of hydrazones under mild conditions

Ming-Dong Zhou, Zhen Peng Lei, Li He Wang

Tetrahedron Letters, 2019, 60(43), 151124

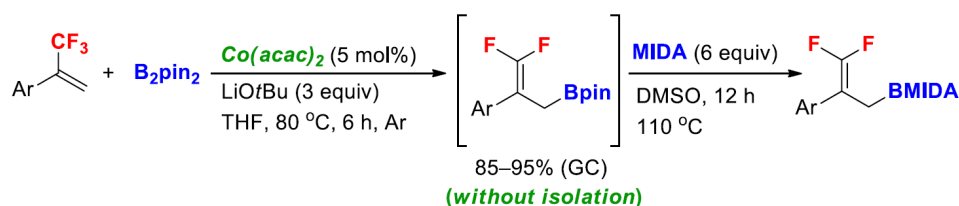


28 examples  
yield up to 85%

### Cobalt- or copper-catalyzed synthesis of gem-difluoroallyl MIDA boronates from $\alpha$ -trifluoromethyl alkenes

Yisen Liu, Chunmei Li, Chuan Liu, Jingjing He, Xianghu Zhao, Song Cao

Tetrahedron Letters, 2020, 61(23), 151940



19 examples  
yield up to 72%