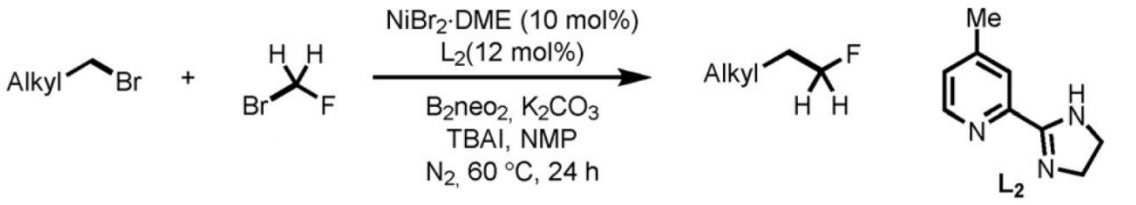
Angewandte Chemie International Edition

Diversity-Oriented Synthesis of Aliphatic Fluorides via Reductive C(sp^3)−C(sp^3) Cross-Coupling Fluoroalkylation

Dr. Jie Sheng, Hui-Qi Ni, Shan-Xiu Ni, Yan He, Ru Cui, Guang-Xu Liao, Kang-Jie Bian, Dr. Bing-Bing Wu, Prof. Dr. Xi-Sheng Wang

Angew. Chem. Int. Ed. 2021, 60, 15020–15027

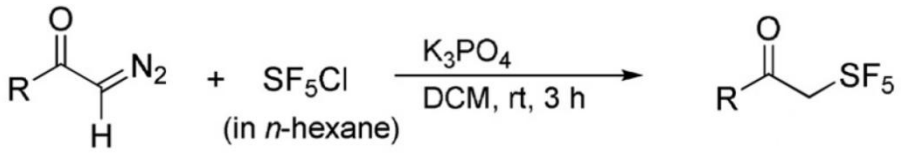


52 examples
yield up to 95%

Chemoselective Hydro(Chloro)pentafluorosulfanylation of Diazo Compounds with Pentafluorosulfanyl Chloride

Jia-Yi Shou, Dr. Xiu-Hua Xu, Prof. Dr. Feng-Ling Qing

Angew. Chem. Int. Ed. 2021, 60, 15271–15275

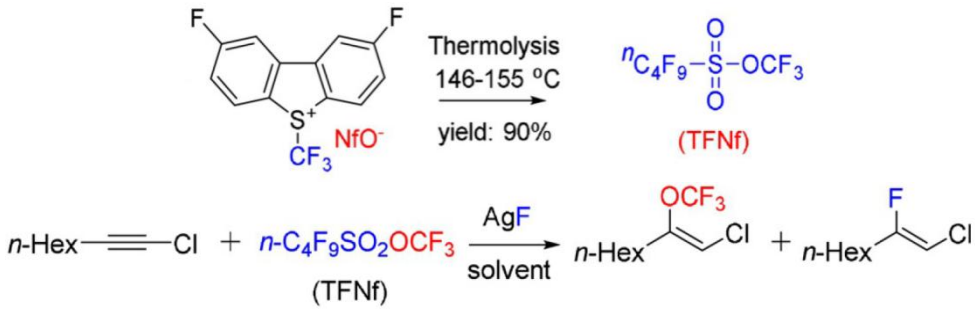


14 examples
yield up to 82%

Trifluoromethyl Nonaflate: A Practical Trifluoromethoxylating Reagent and its Application to the Regio- and Stereoselective Synthesis of Trifluoromethoxylated Alkenes

Dr. Zhichao Lu, Dr. Tatsuya Kumon, Prof. Gerald B. Hammond, Dr. Teruo Umemoto

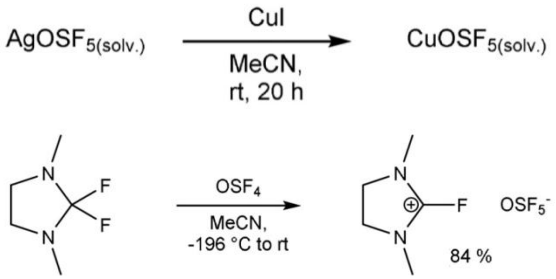
Angew. Chem. Int. Ed. 2021, 60, 16171–16177



A Versatile Silver(I) Pentafluorooxosulfate Reagent for the Synthesis of OSF_5 Compounds

Dr. Axel Haupt, Daniel Duvinage, Dr. Enno Lork, Dr. Maksym Ponomarenko, Prof. Dr. Gerd-Volker Röschenthaler

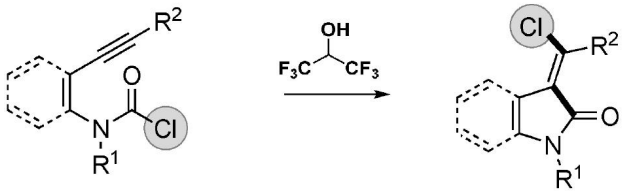
Angew. Chem. Int. Ed. 2021, 60, 17866–17870



Cycloisomerization of Carbamoyl Chlorides in Hexafluoroisopropanol: Stereoselective Synthesis of Chlorinated Methylene Oxindoles and Quinolinones

José F. Rodríguez, Anji Zhang, Jonathan Bajohr, Andrew Whyte, Bijan Mirabi, Prof. Dr. Mark Lautens

Angew. Chem. Int. Ed. 2021, 60, 18478–18483

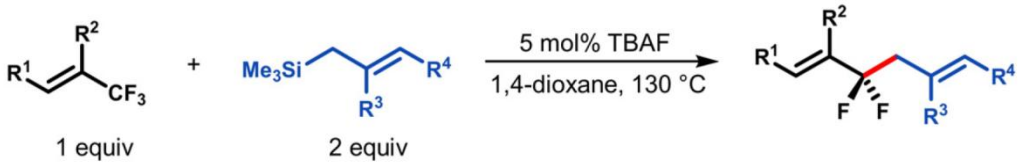


27 examples
yield up to 98%

Selective C–F Bond Allylation of Trifluoromethylalkenes

Prof. Dr. Chuan Zhu, Meng-Meng Sun, Kai Chen, Haidong Liu, Prof. Dr. Chao Feng

Angew. Chem. Int. Ed. 2021, 60, 20237–20242



41 examples
yield up to 96%

Chemical Society Reviews

Continuous flow strategies for using fluorinated greenhouse gases in fluoroalkylations

Wai Chung Fu, Preston M. MacQueenac and Timothy F. Jamison

Chem. Soc. Rev., 2021, 50, 7378-7394

Late-stage difluoromethylation: concepts, developments and perspective

Jeroen B. I. Sap, Claudio F. Meyer, Natan J. W. Straathof, Ndidi Iwumene, Christopher W. am Ende, Andrés A. Trabanco and Véronique Gouverneur

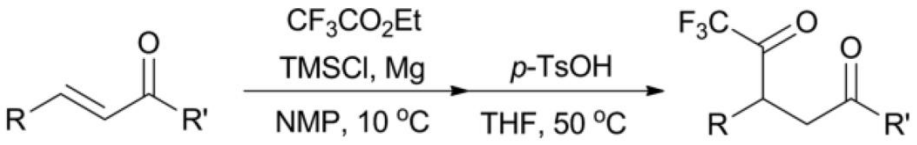
Chem. Soc. Rev., 2021, 50, 8214-8247

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

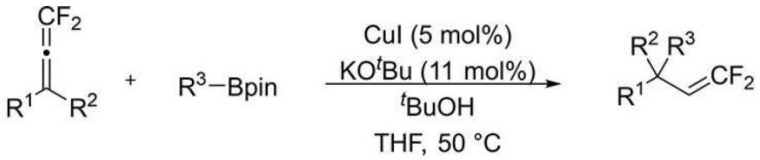


14 examples
yield up to 91%

Copper Catalyzed Protosilylation/Protoborylation of gem-Difluoroallenes

Cui-Cui Shan, Kai-Yang Dai, Meng Zhao, Prof. Yun-He Xu

Eur. J. Org. Chem., 2021, 4054-4058

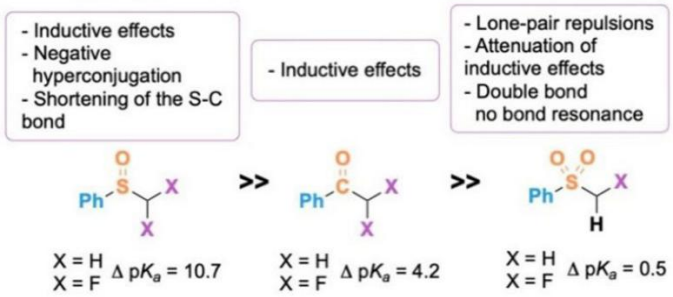


18 examples
yield up to 96%

Aryl Fluoroalkyl Sulfoxides: Optical Stability and pK_a Measurement

Amélia Messara, Dr. Nicolas Vanthuyne, Dr. Patrick Diter, Dr. Mourad Elhabiri, Dr. Armen Panossian, Dr. Gilles Hanquet, Dr. Emmanuel Magnier, Dr. Frédéric R. Leroux

Eur. J. Org. Chem., 2021, 5019-5026

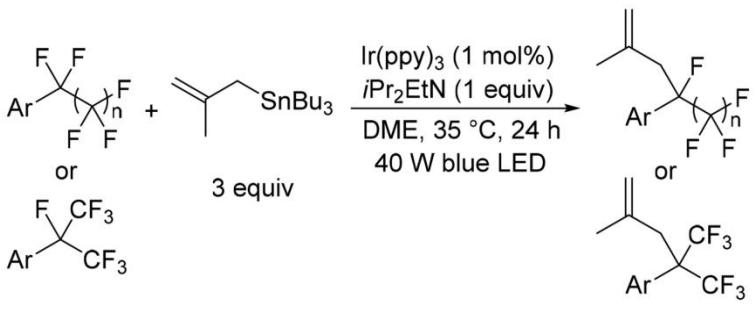


Journal of the American Chemical Society

Photoredox-Catalyzed C–F Bond Allylation of Perfluoroalkylarenes at the Benzylic Position

Naoki Sugihara, Kensuke Suzuki, Yoshihiro Nishimoto, and Makoto Yasuda

J. Am. Chem. Soc., 2021, 143, 9308-9313

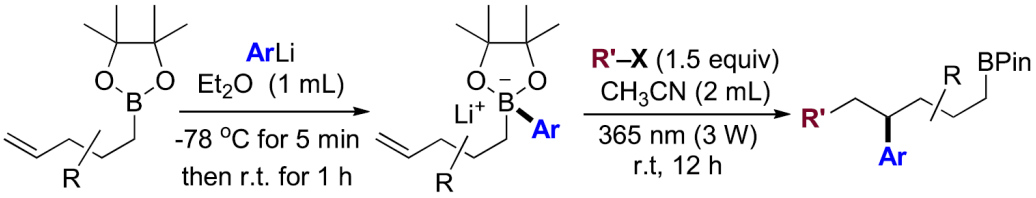


20 examples
yield up to 93%

Radical Aryl Migration from Boron to Carbon

Dinghai Wang, Christian Mück-Lichtenfeld, Constantin G. Daniliuc, and Armido Studer

J. Am. Chem. Soc., 2021, 143, 9320-9326

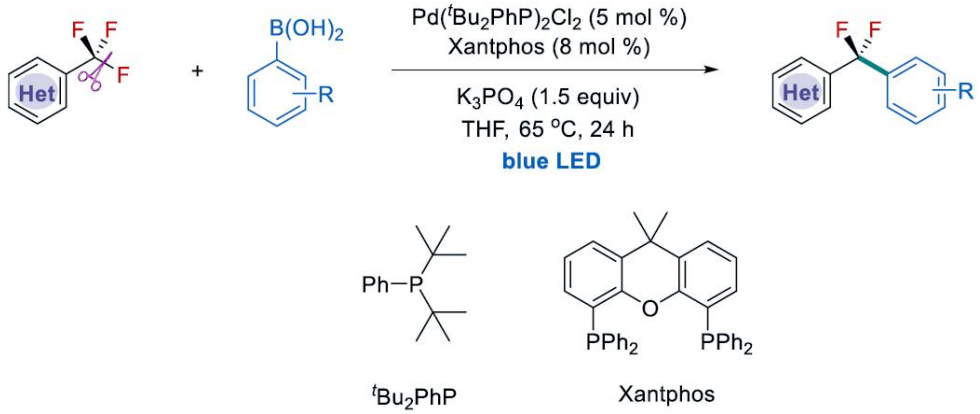


26 examples
yield up to 85%

Photoredox-Catalyzed C–F Bond Allylation of Perfluoroalkylarenes at the Benzylic Position

Yun-Cheng Luo, Fei-Fei Tong, Yanxia Zhang, Chun-Yang He, and Xingang Zhang

J. Am. Chem. Soc., 2021, 143, 13971-13979



20 examples
yield up to 69%