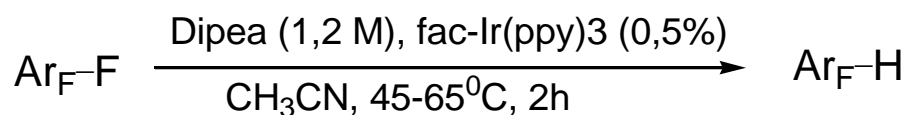


Accounts of Chemical Research

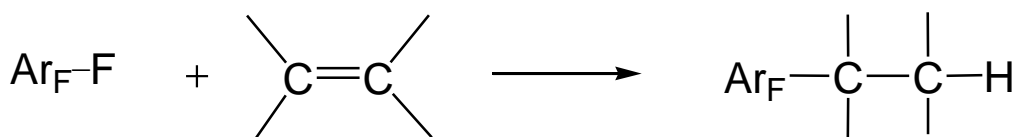
Visible Light Photocatalysis for the Generation and Use of Reactive Azolyl and Polyfluoroaryl Intermediates

Amandeep Arora and Jimmie D. Weaver

Acc. Chem. Res. 2016, 49, 2273-2283



22 examples
45-99%



21 examples
42-79%

Chemical Communications

Visible-light-mediated radical oxydifluoromethylation of olefinic amides for the synthesis of CF₂H-containing heterocycles

Weijun Fu, Xin Han, Mei Zhu, Chen Xu, Zhiqiang Wang, Baoming Ji, Xin-Qi Hao and Mao-Ping Song

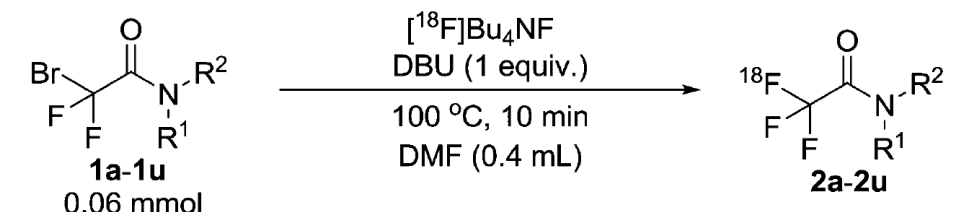
Chem. Commun., 2016, 52, 13413-13416



Efficient DBU accelerated synthesis of ^{18}F -labelled trifluoroacetamides

Antonio Bermejo Gómez, Miguel A. Cortés González, Marvin Lübcke,^{b,c} Magnus J. Johansson, Christer Halldin, Kálmán J. Szabó, and Magnus Schou

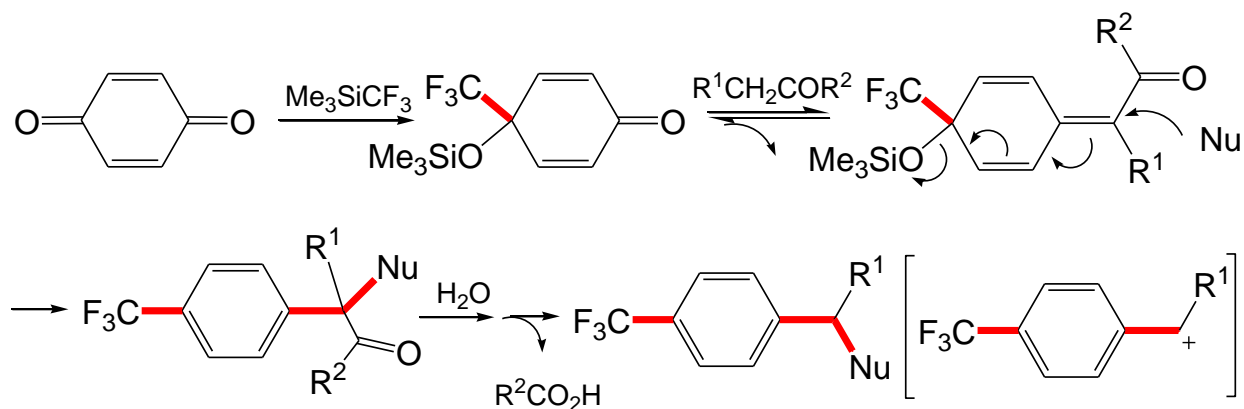
Chem. Commun., 2016, 52, 13963-13966



In-situ generation and reactions of *p*-(trifluoromethyl)benzyl electrophiles: efficient access to *p*-(trifluoromethyl)benzyl compounds

Jinhuan Dong, Shuang Xin, Yanqing Wang, Ling Pan and Qun Liu

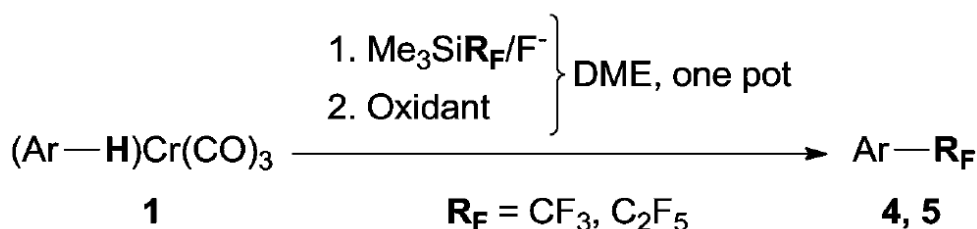
Chem. Commun., 2017, 53, 1668-1671



The first nucleophilic C–H perfluoroalkylation of aromatic compounds via (arene)tricarbonylchromium complexes

Natalia V. Kirij, Andrey A. Filatov, Gleb Yu. Khrapach and Yurii L. Yagupolskii

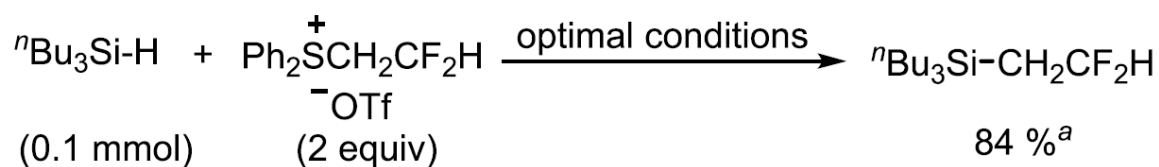
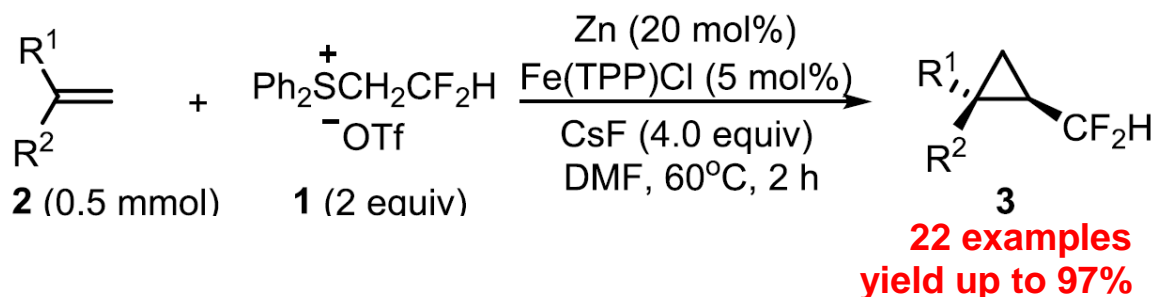
Chem. Commun., 2017, 53, 2146-2149



Difluoromethylcarbene for Iron-catalyzed Cyclopropanation

Yaya Duan, Jin-Hong Lin, Ji-Chang Xiao and Yu-Cheng Gu

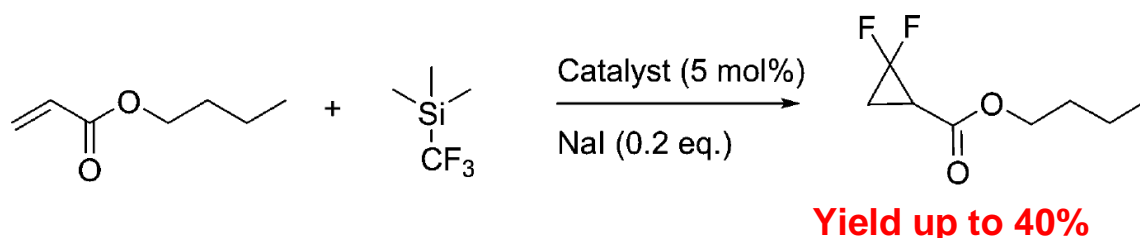
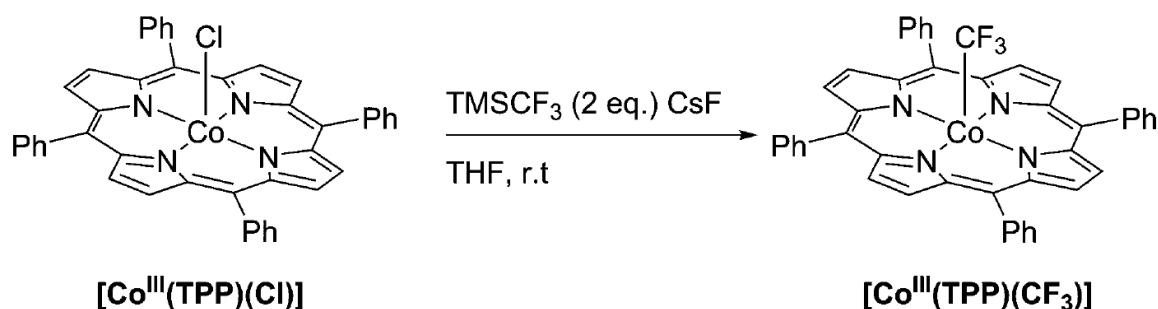
Chem. Commun., 2017, 53, 3870-3873



Difluorocarbene transfer from a cobalt complex to an electron-deficient alkene

Monalisa Goswami, Bas de Bruin and Wojciech I. Dzik

Chem. Commun., 2017, 53, 4382-4385

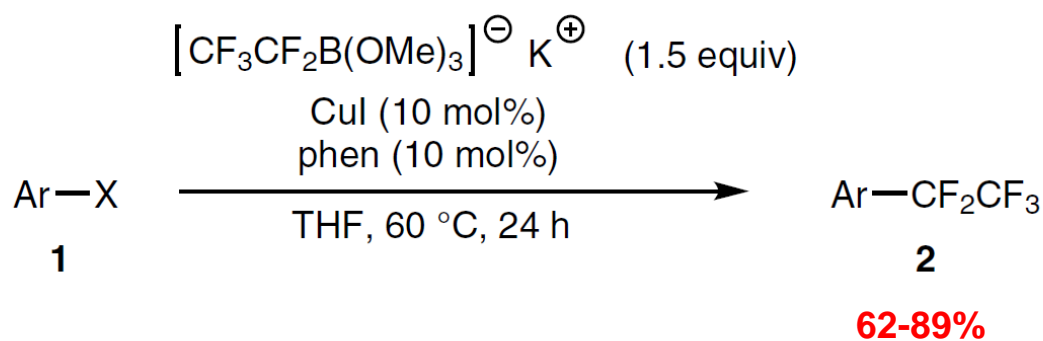


Synthesis

A Convenient Method for Catalytic Aromatic Pentafluoroethylation Using Potassium (Pentafluoroethyl)trimethoxyborate

Tsuyuka Sugiishi, Daisuke Kawauchi, Mizuki Sato, Tatsuya Sakai, Hideki Amii

Synthesis, 2017, 49, 1874-1878

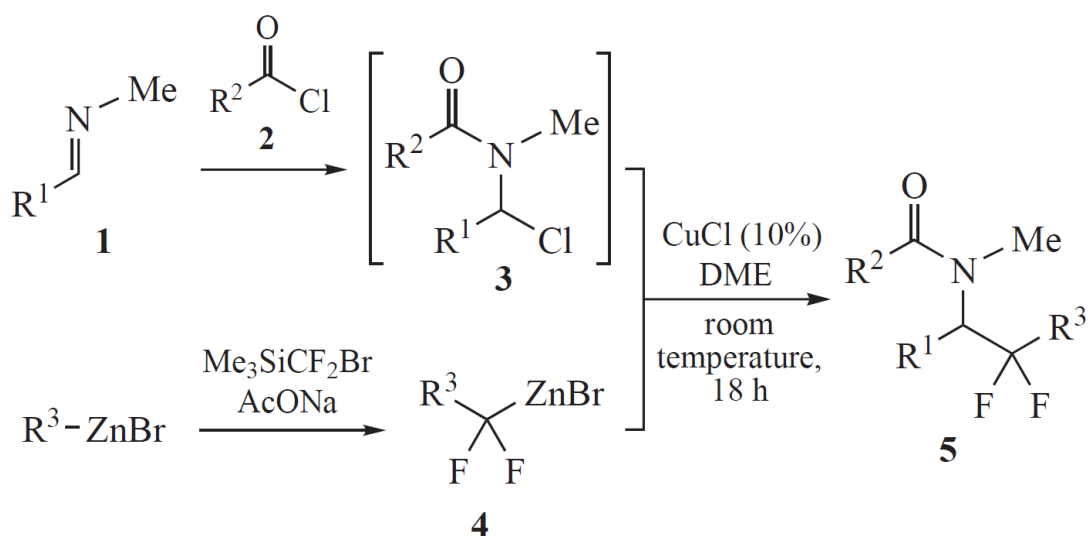


Mendeleev Communications

Coupling of *N*-acyliminium chlorides with *gem*-difluorinated organozinc reagents

Vitalij V. Levin, Marina I. Struchkova and Alexander D. Dilman

Mendeleev Commun., 2017, 27, 139–140



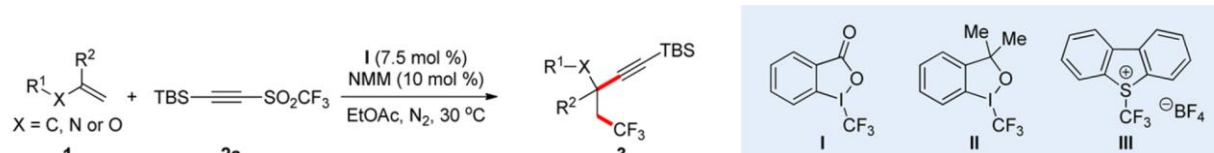
Yield up to 55%

Organic Letters

Radical Alkynyltrifluoromethylation of Alkenes Initiated by an Electron Donor–Acceptor Complex

Heng Jiang, Yanyan He, Yuanzheng Cheng, and Shouyun Yu

Org. Lett. 2017, 19, 1240-1243



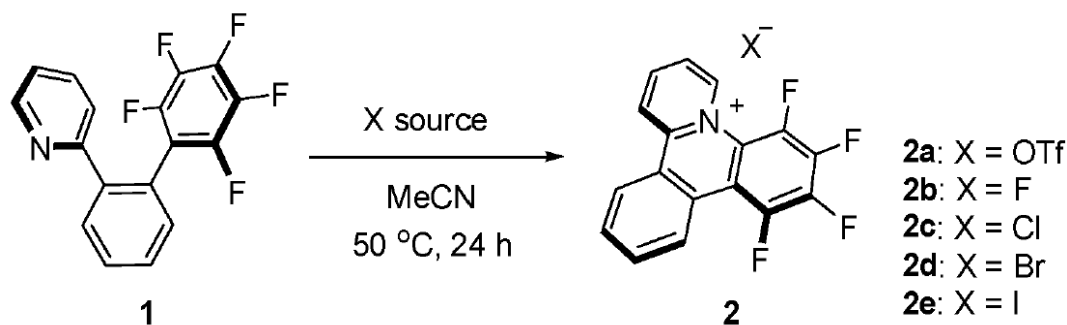
alifatic alkenes 19 examples
43-95%

vinyl ethers and enecarbomates 10 examples
65-95%

Synthesis of Ring-Fused Pyridinium Salts by Intramolecular Nucleophilic Aromatic Substitution Reaction and Their Optoelectronic Properties

Yuki Asanuma, Hiroshi Eguchi, Hiroki Nishiyama, Ikuyoshi Tomita, and Shinsuke Inagi

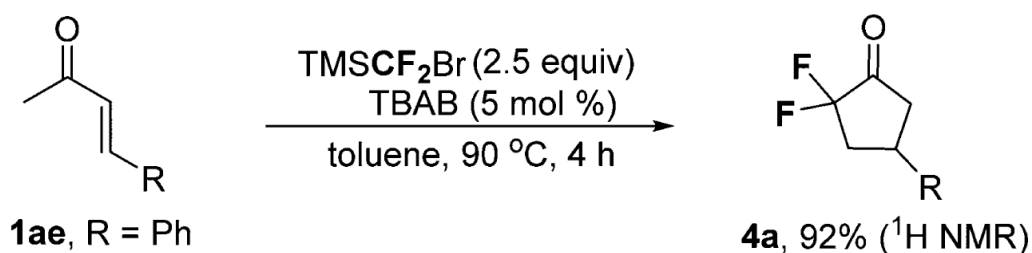
Org. Lett. 2017, 19, 1824-1827



Me₃SiCF₂Br-Self-Assisted Domino Reaction: Catalytic Synthesis of α,α -Difluorocyclopentanones from Methylvinylketones

Jian Chang, Cong Xu, Jie Gao, Fengyun Gao, Dongsheng Zhu, and Mang Wang

Org. Lett. 2017, 19, 1850-1853



Aluminum-Catalyzed Cross-Coupling of Silylalkynes with Aliphatic C–F Bonds

Amit K. Jaiswal, Kelvin K. K. Goh, Simon Sung, and Rowan D. Young

Org. Lett. 2017, 19, 1934-1937



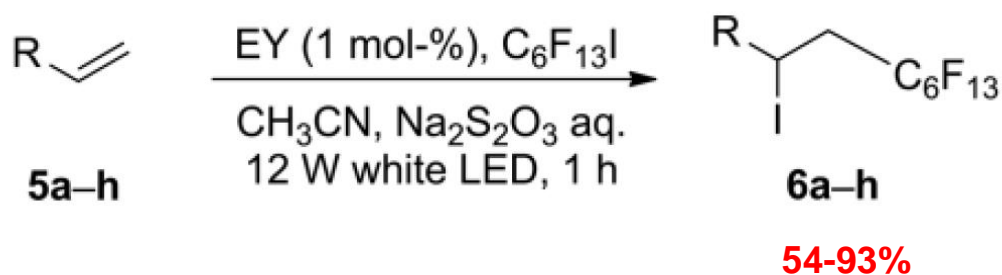
57-98%

European Journal of Organic Chemistry

Metal-Free Visible-Light Radical Iodoperfluoroalkylation of Terminal Alkenes and Alkynes

Tomoko Yajima and Mako Ikegami

Eur.J. Org.Chem., 2017, 2126-2129

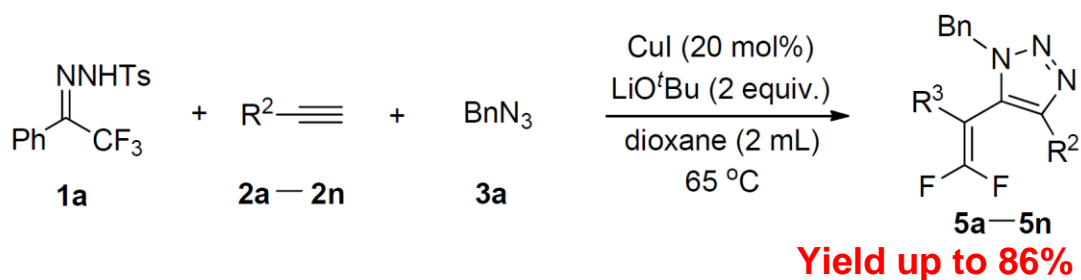


Chinese Journal of Chemistry

Cu(I)-Catalyzed Three-Component Coupling of Trifluoromethyl Ketone *N*-Tosylhydrazones, Alkynes and Azides: Synthesis of Difluoromethylene Substituted 1,2,3-Triazoles

Zhikun Zhang, Qi Zhou, Weizhi Yu, Tianjiao Li, Yan Zhang, and Jianbo Wang

Chin.J.Chem., 2017, 35, 387-391

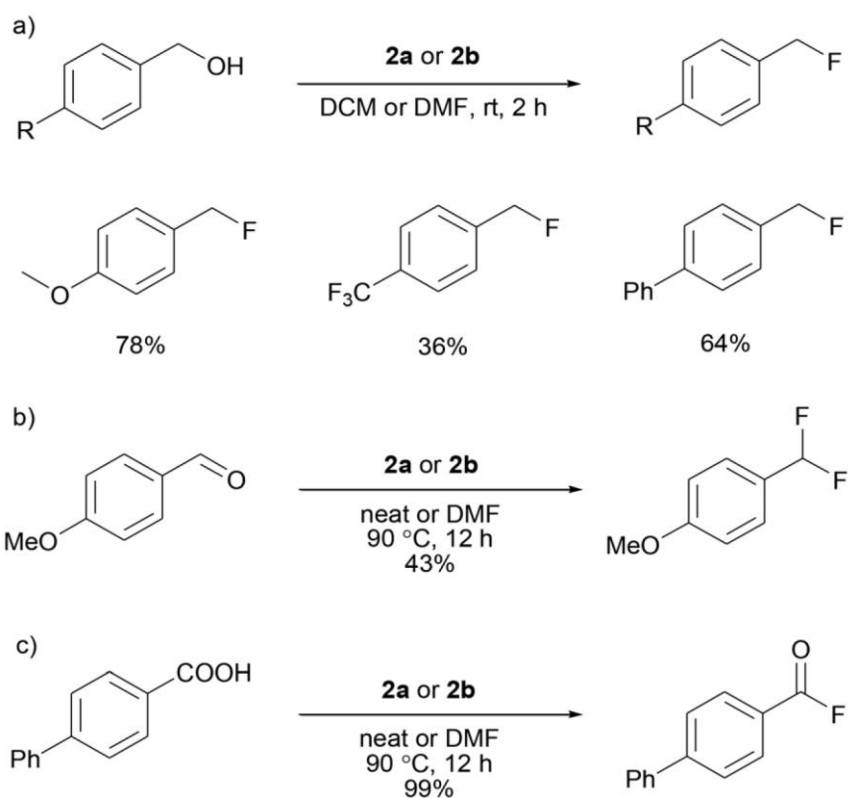
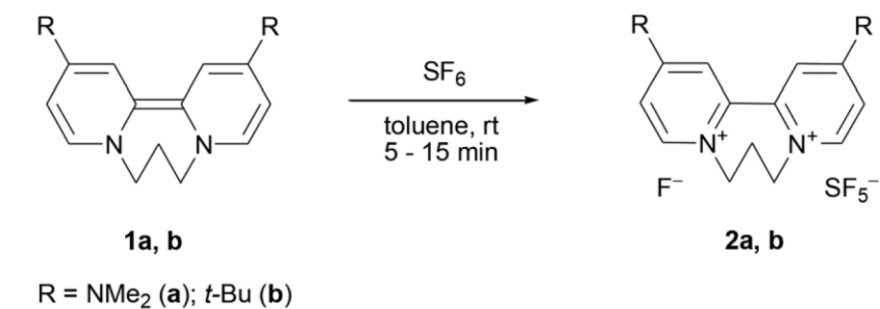


Green Chemistry

Metal-free reduction of the greenhouse gas sulfur hexafluoride, formation of SF₅ containing ion pairs and the application in fluorinations

Magnus Rueping, Pavlo Nikolaienko, Yury Lebedev and Alina Adams

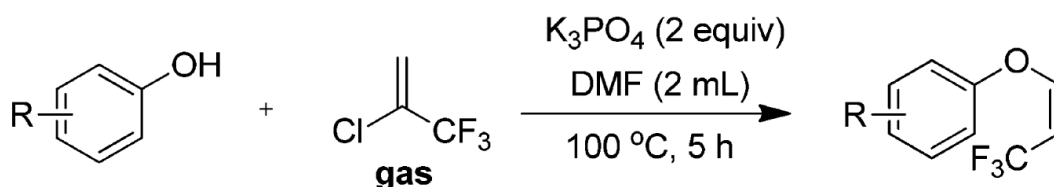
Green.Chem., 2017, 19, 2571-2575



Construction of β -Trifluoromethyl Enol Ether via Base-Promoted C–O Coupling and Rearrangement of Hydrogen Atom

Kun Dai, Kuan Wang, Yang Li, Jian-Gang Chen, Zhong-Wen Liu, Jian Lu, and Zhao-Tie Liu

J. Org. Chem., 2017, 82, 4721-4728

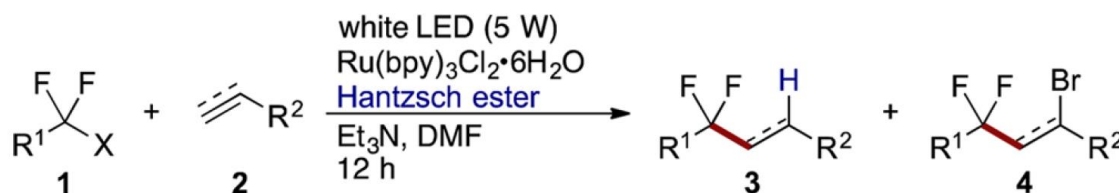


23 examples
64-93%

Photoredox-Catalyzed Hydrodifluoroalkylation of Alkenes Using Difluorohaloalkyl Compounds and a Hantzsch Ester

Shuhei Sumino, Misae Uno, Takahide Fukuyama, Ilhyong Ryu, Makoto Matsuura, Akinori Yamamoto, and Yosuke Kishikawa

J. Org. Chem., 2017, 82, 5469-5474

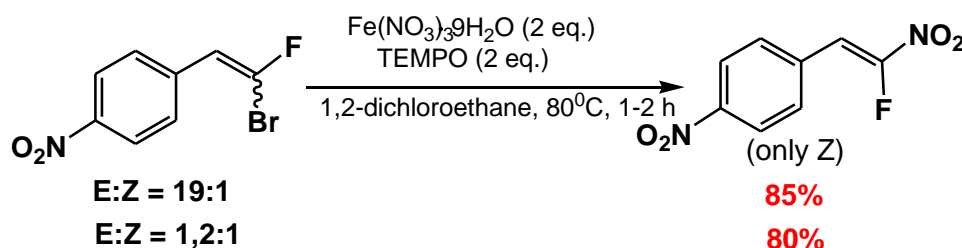


17 examples
Yield up to 77%

Radical Nitration-Debromination of α -Bromo- α -fluoroalkenes as a Stereoselective Route to Aromatic α -Fluoronitroalkenes - Functionalized Fluorinated Building Blocks for Organic Synthesis

Vladimir A. Motornov, Vasiliy M. Muzalevskiy, Andrey A. Tabolin, Roman A. Novikov, Yulia V. Nelyubina, Valentine G. Nenajdenko, and Sema L. Ioffe

J. Org. Chem., 2017, 82, 5274-5284

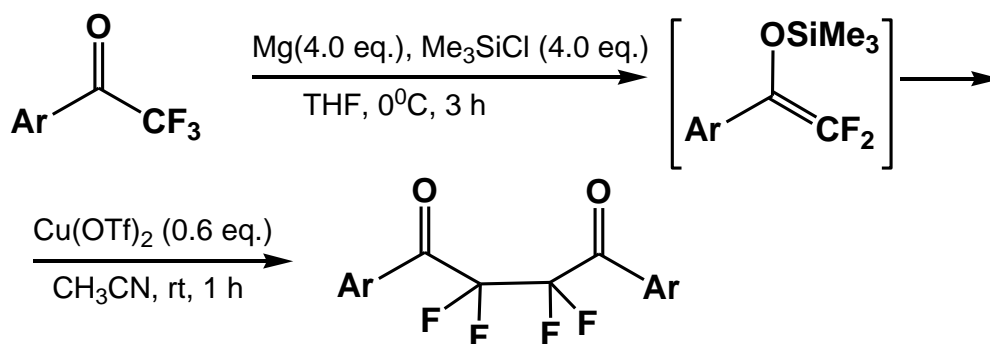


Journal of Fluorine Chemistry

New entry for fluorinated carbocycles: Unprecedented 3,6-disubstituted 1,1,2,2-tetrafluorocyclohexane derivatives

Shigeyuki Yamada, Shohei Hashishita, Hideaki Konishi, Yuji Nishi, Toshio Kubota, Tomoyuki Asai, Takashi Ishihara, Tsutomu Konno

J. Fluor. Chem., 2017, 200, 47-58.



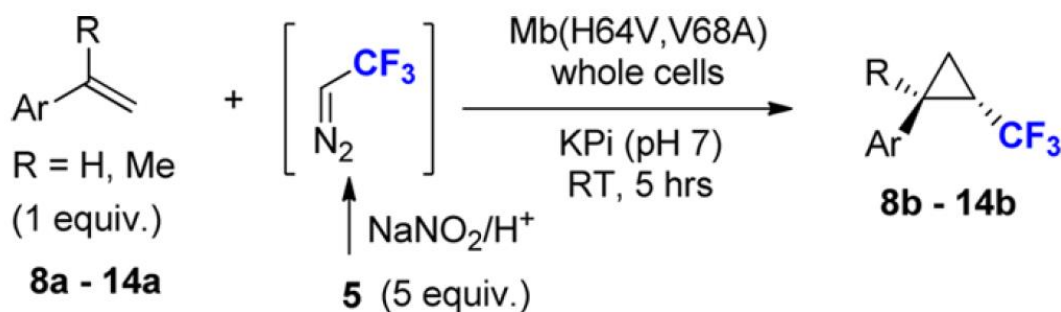
Yield up to 66%

Journal of the American Chemical Society

Highly Diastereo- and Enantioselective Synthesis of Trifluoromethyl-Substituted Cyclopropanes via Myoglobin-Catalyzed Transfer of Trifluoromethylcarbene

Antonio Tinoco, Viktoria Steck, Vikas Tyagi, and Rudi Fasan

J. Am. Chem. Soc., 2017, 139, 5293-5296



69-99%