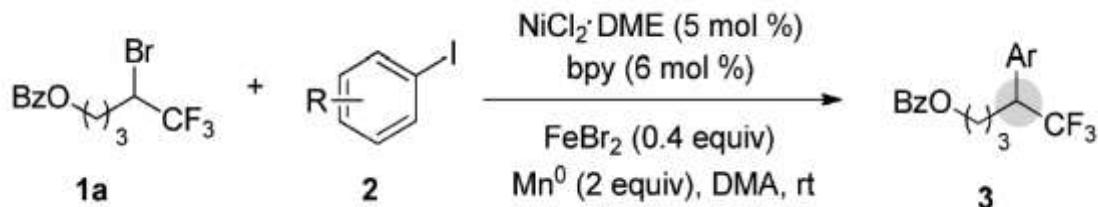


Organic Letters

Nickel-Catalyzed Reductive Cross-Coupling of (Hetero)Aryl Iodides with Fluorinated Secondary Alkyl Bromides

Xuefei Li, Zhang Feng, Zhong-Xing Jiang, and Xingang Zhang

Org.Lett., 2015, 17, 5570-5573



Lewis Acid Catalyzed Synthesis of α -Trifluoromethyl Esters and Lactones by Electrophilic Trifluoromethylation

Dmitry Katayev, Václav Matoušek, Raffael Koller, and Antonio Togni

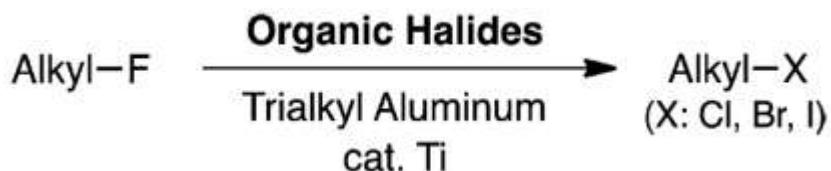
Org.Lett., 2015, 17, 5898-5901



Halogen Exchange Reaction of Aliphatic Fluorine Compounds with Organic Halides as Halogen Source

Yuki Mizukami, Zhiyi Song, and Tamotsu Takahashi

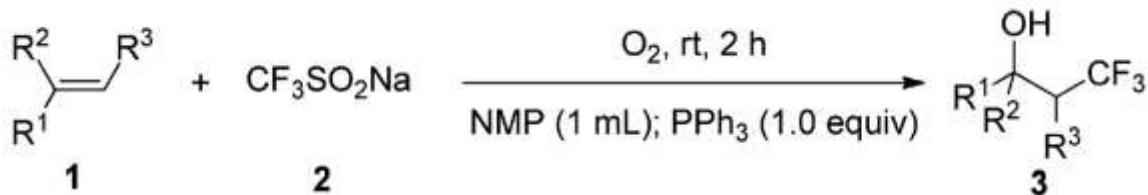
Org.Lett., 2015, 17, 5942-5945



NMP and O₂ as Radical Initiator: Trifluoromethylation of Alkenes to Tertiary β -Trifluoromethyl Alcohols at Room Temperature

Chao Liu, Qingquan Lu, Zhiyuan Huang, Jian Zhang, Fan Liao, Pan Peng, and Aiwen Lei

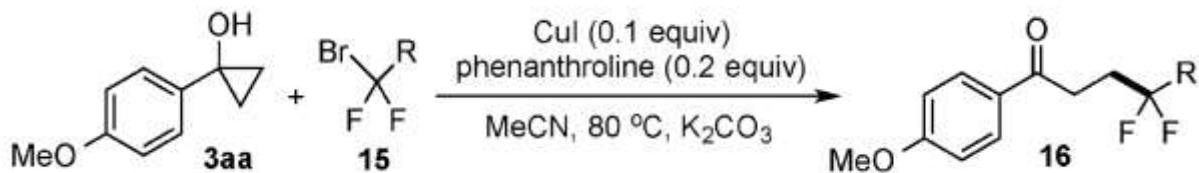
Org.Lett., 2015, 17, 6034-6037



Copper-Catalyzed Cyclopropanol Ring Opening Csp₃-Csp₃ Cross-Couplings with (Fluoro)Alkyl Halides

Zhishi Ye, Kristen E. Gettys, Xingyu Shen, and Mingji Dai

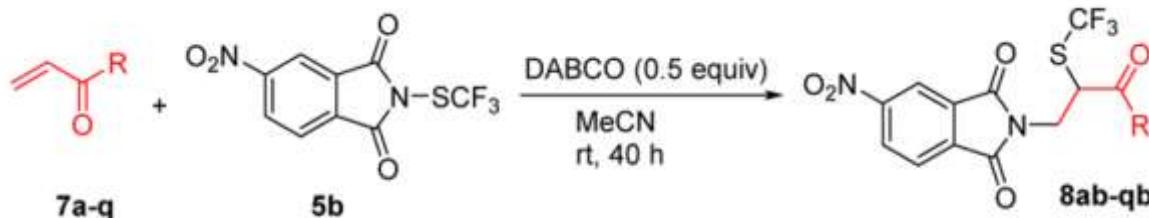
Org.Lett., 2015, 17, 6074-6077



1,4-Diazabicyclo[2.2.2]octane-Promoted Aminotrifluoromethylthiolation of α,β -Unsaturated Carbonyl Compounds: N-Trifluoromethylthio-4-nitrophthalimide Acts as Both the Nitrogen and SCF₃ Sources

Qing Xiao, Qijie He, Juncheng Li, and Jun Wang

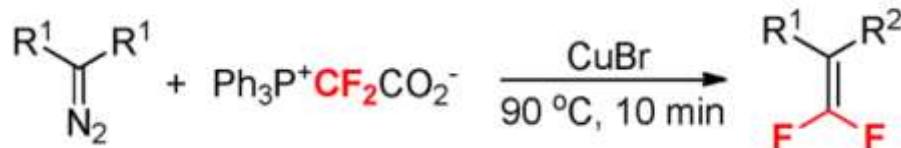
Org.Lett., 2015, 17, 6090-6093



Cross-Coupling between Difluorocarbene and Carbene-Derived Intermediates Generated from Diazocompounds for the Synthesis of gem-Difluoroolefins

Jian Zheng, Jin-Hong Lin, Liu-Ying Yu, Yun Wei, Xing Zheng, and Ji-Chang Xiao

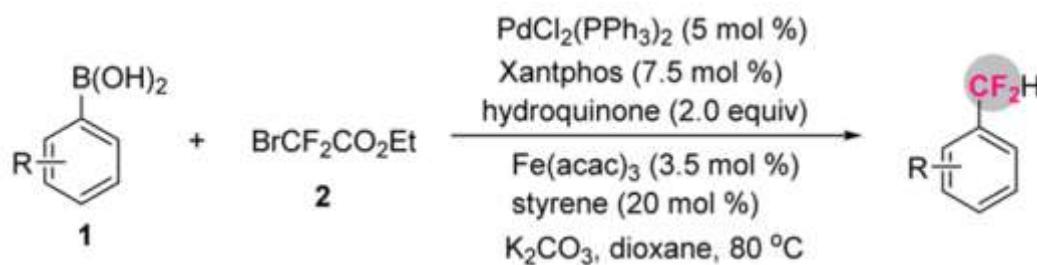
Org.Lett., 2015, 17, 6150-6153



Access to Difluoromethylated Arenes by Pd-Catalyzed Reaction of Arylboronic Acids with Bromodifluoroacetate

Zhang Feng, Qiao-Qiao Min, and Xingang Zhang

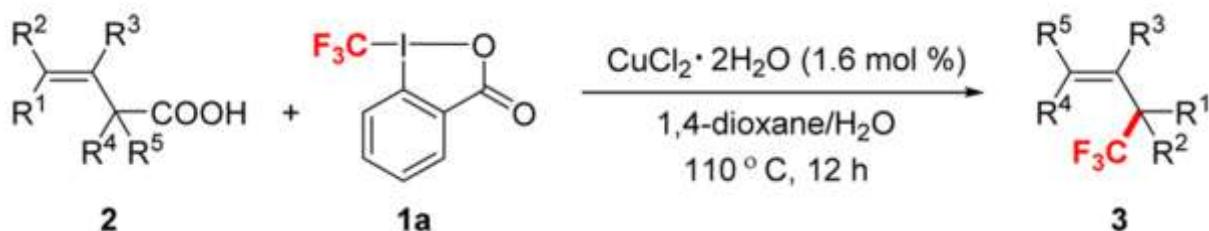
Org.Lett., 2016, 18, 44-47



Copper-Catalyzed Trifluoromethylation of Polysubstituted Alkenes Assisted by Decarboxylation

Zhengbiao He, Ping Tan, and Jinbo Hu

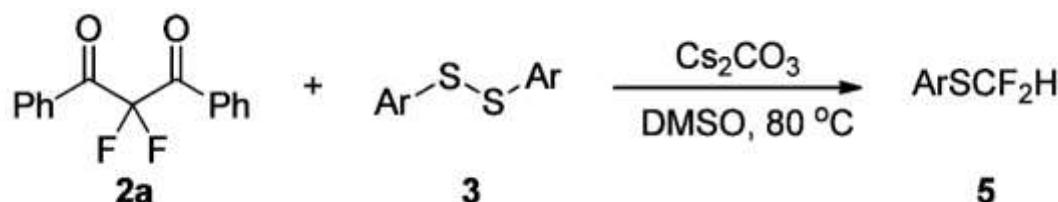
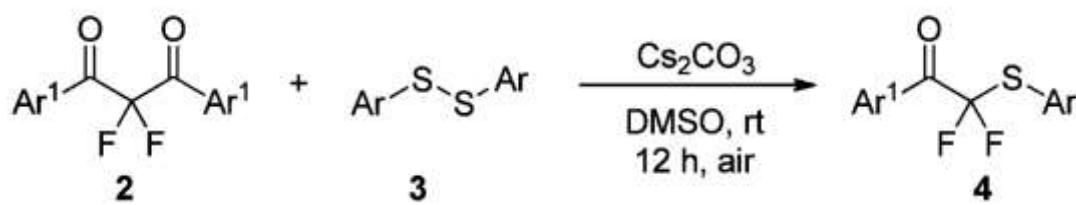
Org.Lett., 2016, 18, 72-75



A Route to α -Fluoroalkyl Sulfides from α -Fluorodiaroylmethanes

Ya-mei Lin, Wen-bin Yi, Wan-zhao Shen, and Guo-ping Lu

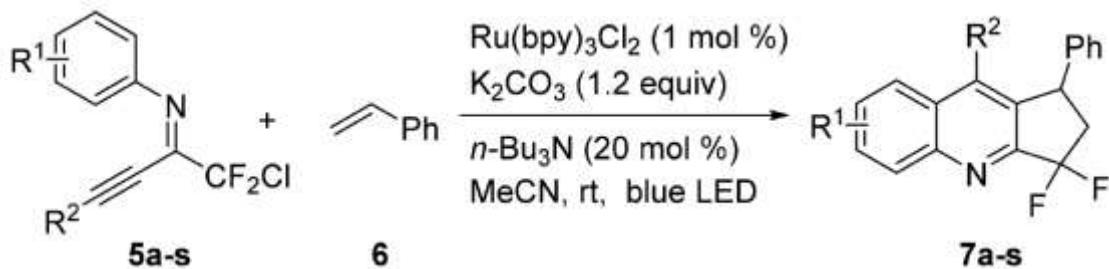
Org.Lett., 2016, 18, 592-595



Synthesis of Gem-Difluorinated Fused Quinolines via Visible Light-Mediated Cascade Radical Cyclization

Tiebo Xiao, Linyong Li, Yang Xie, Zong-Wan Mao, and Lei Zhou

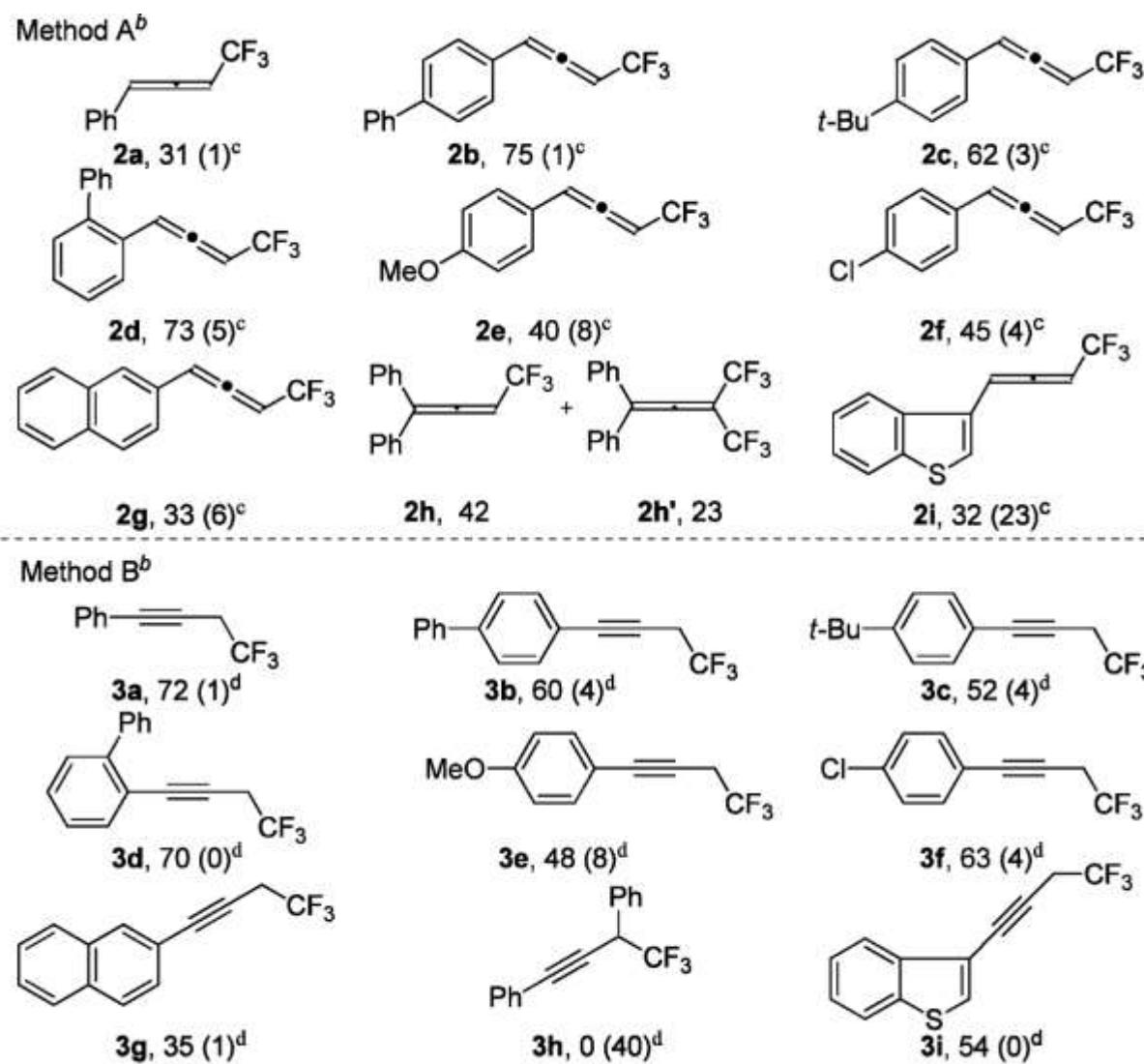
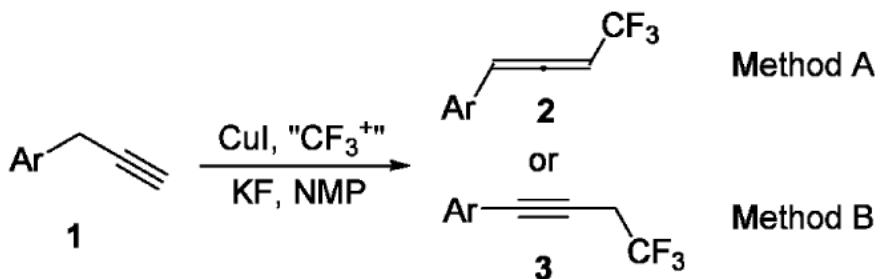
Org.Lett., 2016, 18, 1004-1007



Cu-Catalyzed C–H Trifluoromethylation of 3-Arylprop-1-yne s for the Selective Construction of Allenic Csp₂–CF₃ and Propargyl Csp₃–CF₃ Bonds

Yun-Long Ji, Jia-Jia Luo, Jin-Hong Lin, Ji-Chang Xiao, and Yu-Cheng Gu

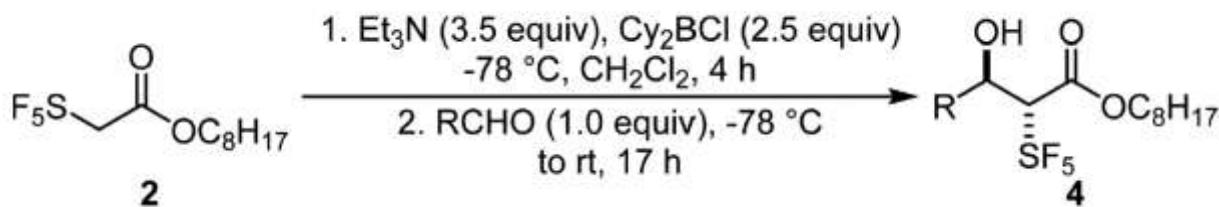
Org.Lett., 2016, 18, 1000-1003



Anti-Selective Aldol Reactions of Pentafluorosulfanylacetic Acid Esters with Aldehydes Mediated by Dicyclohexylchloroborane

Florian W. Friese, Anna-Lena Dreier, Andrej V. Matsnev, Constantin G. Daniliuc, Joseph S. Thrasher, and Günter Haufe

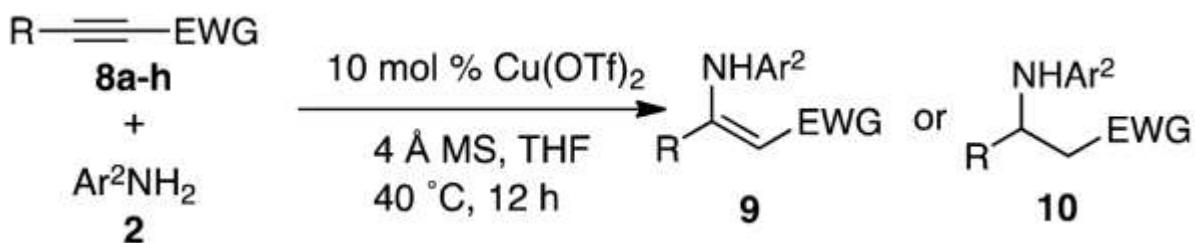
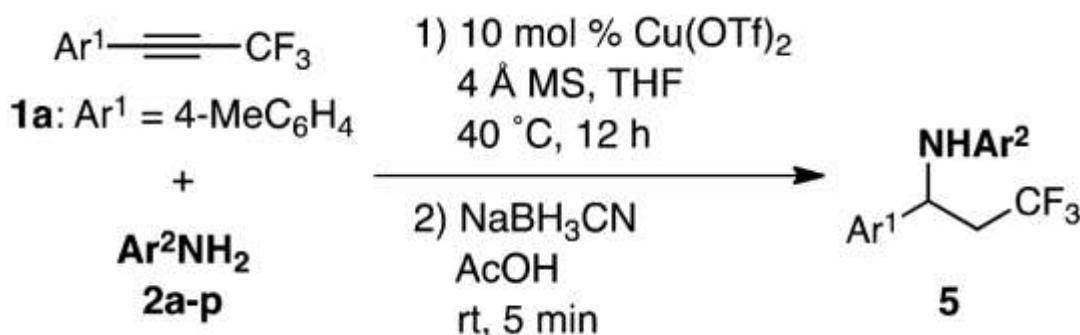
Org.Lett., 2016, 18, 1000-1003



Copper-Catalyzed Intermolecular Hydroamination of Internal Alkynes with Anilines and Amines

Tomoki Ishikawa, Taro Sonehara, Maki Minakawa, and Motoi Kawatsura

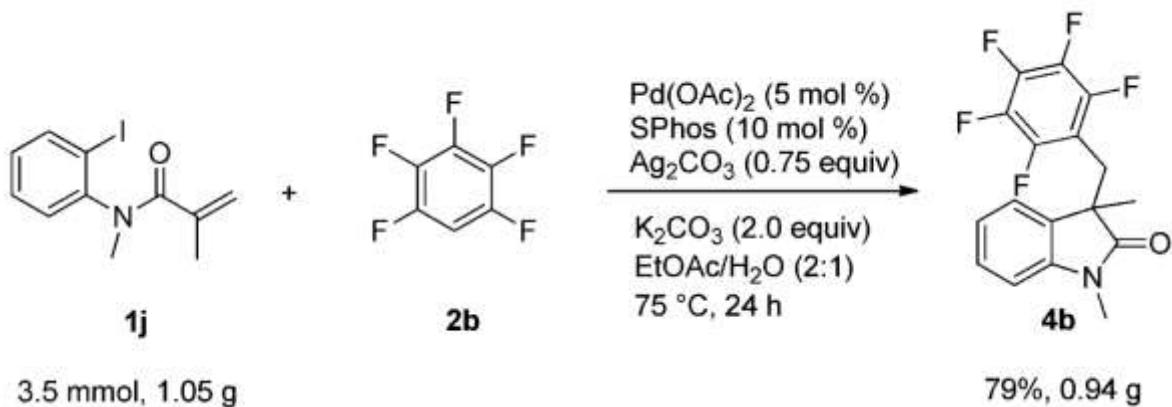
Org.Lett., 2016, 18, 1422-1425



Palladium-Catalyzed Domino Heck/Intermolecular C–H Bond Functionalization: Efficient Synthesis of Alkylated Polyfluoroarene Derivatives

Xin-Xing Wu, Wen-Long Chen, Yi Shen, Si Chen, Peng-Fei Xu,^{*} and Yong-Min Liang

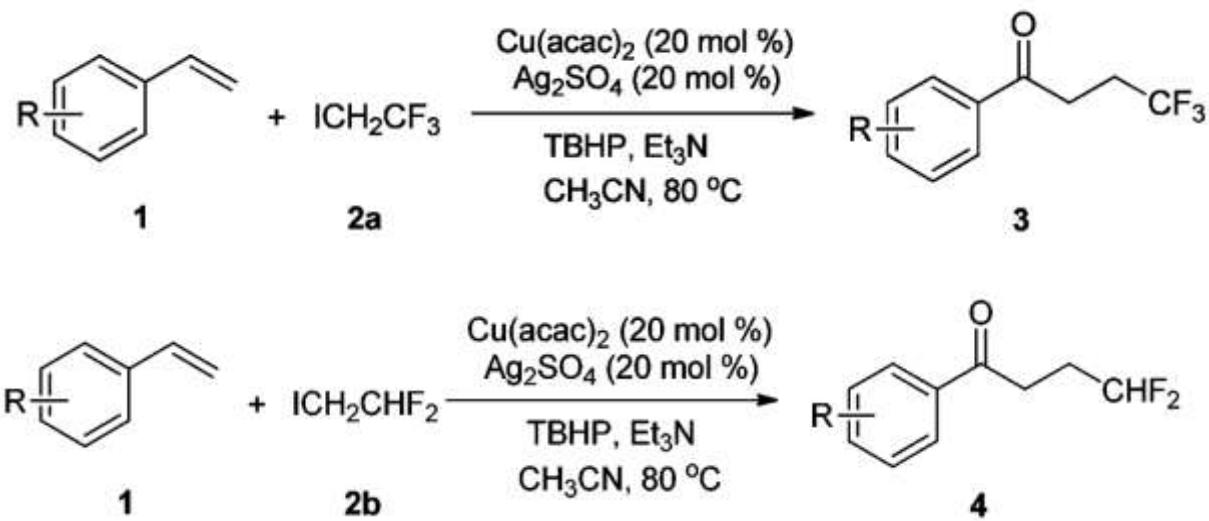
Org.Lett., 2016, 18, 1784-1787



Copper/Silver Cocatalyzed Oxidative Coupling of Vinylarenes with ICH_2CF_3 or ICH_2CHF_2 Leading to $\beta\text{-CF}_3/\text{CHF}_2$ -Substituted Ketones

Niannian Yi, Hao Zhang, Chonghui Xu, Wei Deng, Ruijia Wang, Dongming Peng,[†] Zebing Zeng, and Jiannan Xiang

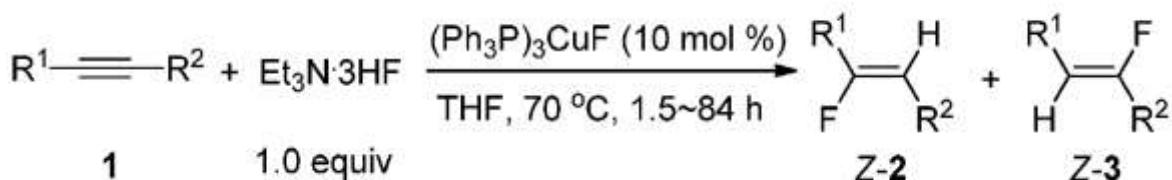
Org.Lett., 2016, 18, 1780-1783



Cu(I)- or Ag(I)-Catalyzed Regio- and Stereocontrolled trans-Hydrofluorination of Ynamides

Guangke He, Shineng Qiu, Hai Huang, Guohao Zhu, Dongming Zhang, Rong Zhang, and Hongjun Zhu

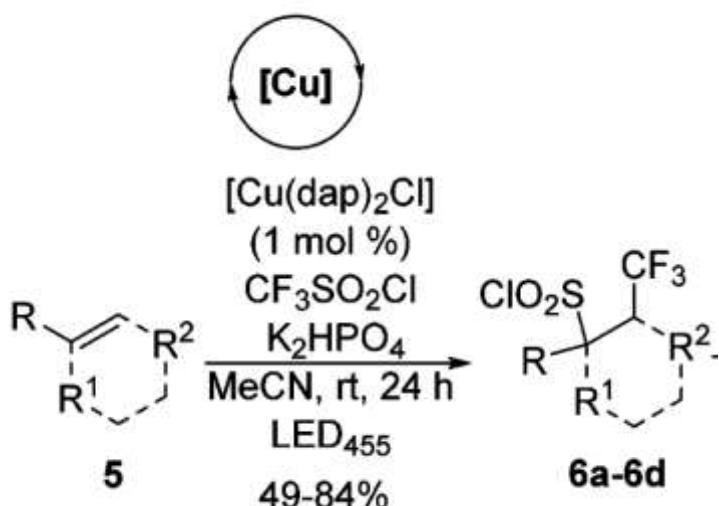
Org.Lett., 2016, 18, 1856-1859



Synthesis of β - Hydroxysulfones from Sulfonyl Chlorides and Alkenes Utilizing Visible Light Photocatalytic Sequences

Santosh K. Pagire, Suva Paria, and Oliver Reiser

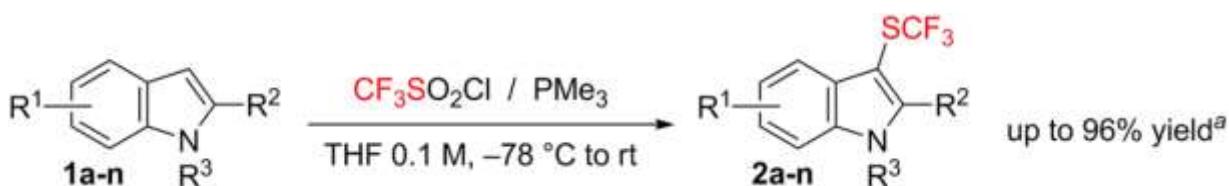
Org.Lett., 2016, 18, 2106-2109



Novel Use of $\text{CF}_3\text{SO}_2\text{Cl}$ for the Metal-Free Electrophilic Trifluoromethylthiolation

Hélène Chachignon, Mayaka Maeno, Hiroya Kondo, Norio Shibata, and Dominique Cahard

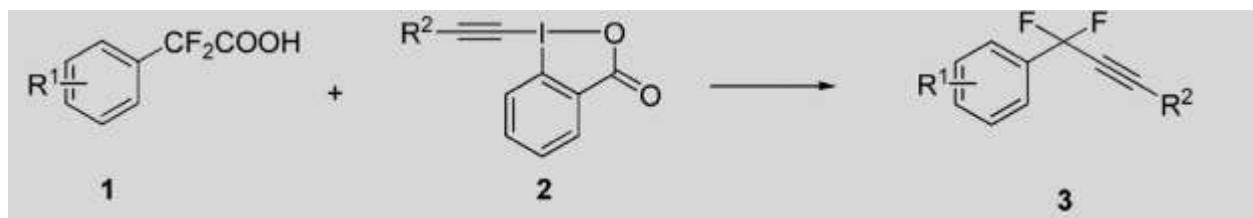
Org.Lett., 2016, 18, 2467-2470



Silver-Catalyzed Decarboxylative Alkynylation of α,α -Difluoroaryl Acetic Acids with Ethynylbenziodoxolone Reagents

Fei Chen and A. Stephen K. Hashmi

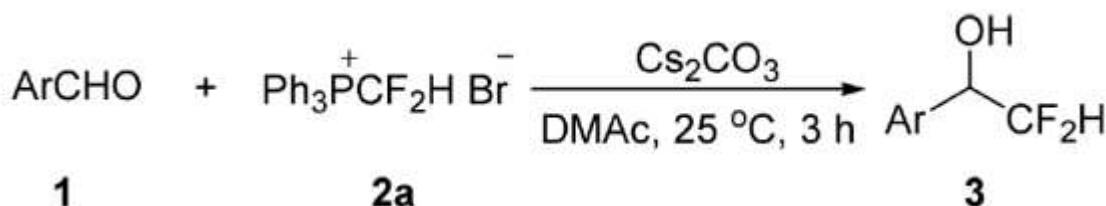
Org.Lett., 2016, 18, 2880-2882



Direct Nucleophilic Difluoromethylation of Carbonyl Compounds

Zuyong Deng, Jin-Hong Lin, Ji Cai, and Ji-Chang Xiao

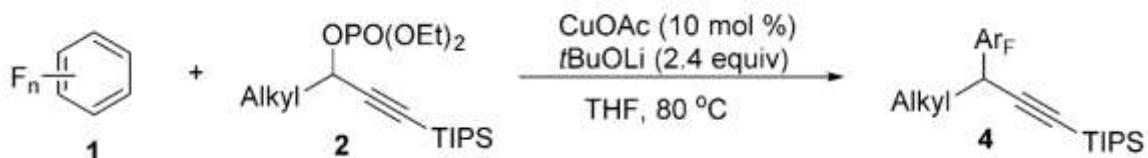
Org.Lett., 2016, 18, 3206-3209



Copper-Catalyzed Direct Propargylation of Polyfluoroarenes with Secondary Propargyl Phosphates

Yan-Bo Yu, Zhi-Ji Luo, and Xingang Zhang

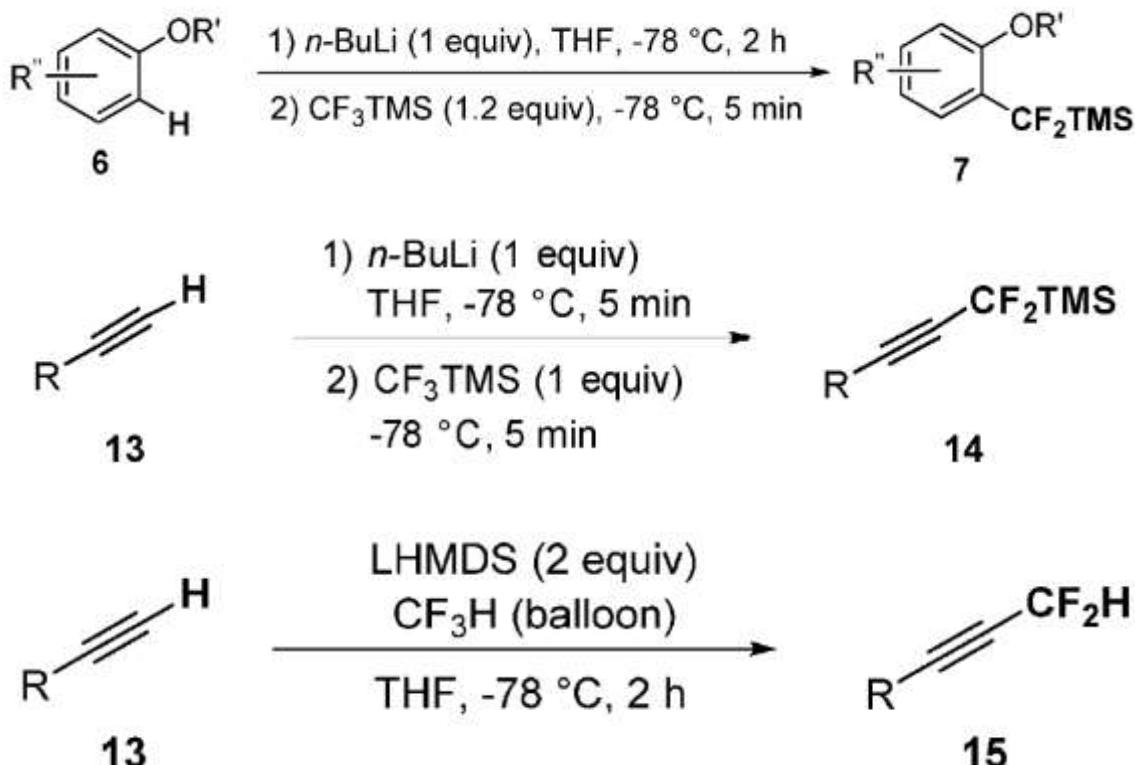
Org.Lett., 2016, 18, 3302-3305



Siladifluoromethylation and Difluoromethylation onto C(sp³), C(sp²), and C(sp) Centers Using Ruppert–Prakash Reagent and Fluoroform

Kohsuke Aikawa, Kenichi Maruyama, Junki Nitta, Ryota Hashimoto, and Koichi Mikami

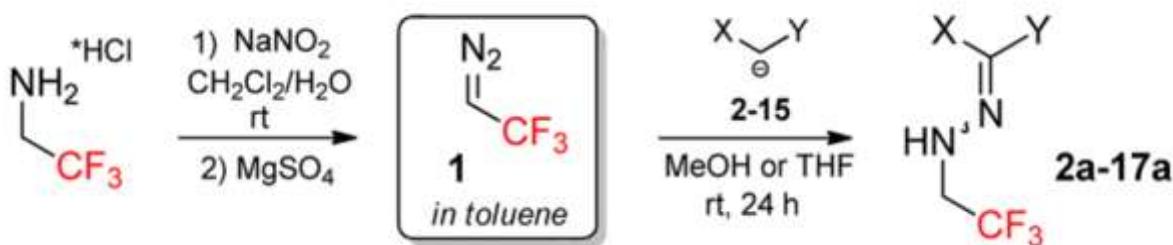
Org.Lett., 2016, 18, 3354-3357



Unexpected Reactivity of Trifluoromethyl Diazomethane (CF₃CHN₂): Electrophilicity of the Terminal N-Atom

Anton V. Arkhipov, Viatcheslav V. Arkhipov, Janine Cossy, Volodymir O. Kovtunenko, and Pavel K. Mykhailiuk

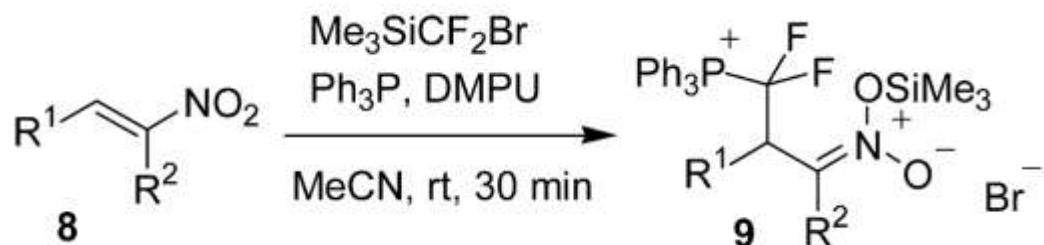
Org.Lett., 2016, 18, 3406-3409



Nucleophilic Difluoromethylation Using (Bromodifluoromethyl)trimethylsilane

Alexey L. Trifonov, Artem A. Zemtsov, Vitalij V. Levin, Marina I. Struchkova, and Alexander D. Dilman

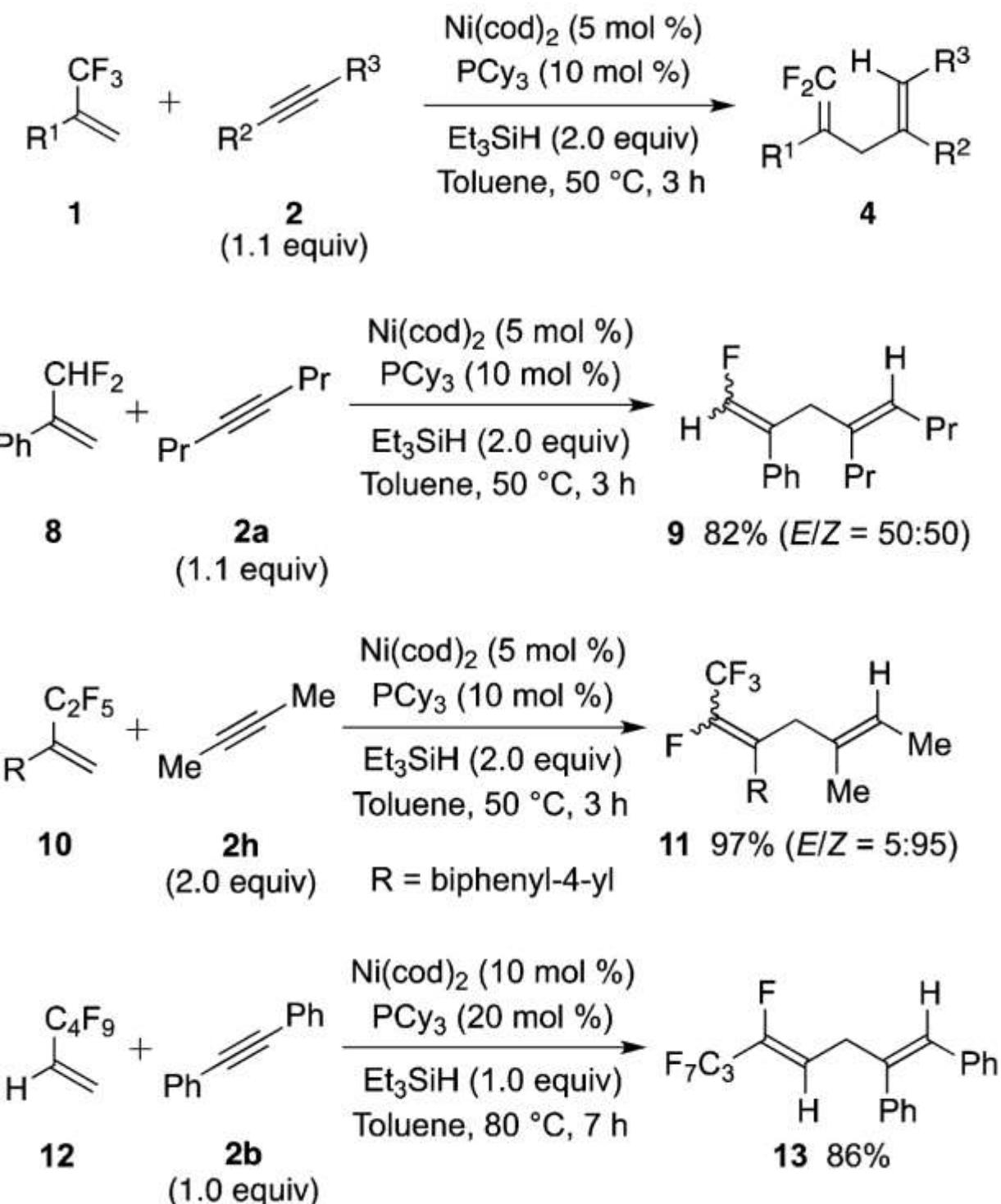
Org.Lett., 2016, 18, 3458-3461



Nickel-Catalyzed Allylic C(sp³)–F Bond Activation of Trifluoromethyl Groups via β-Fluorine Elimination: Synthesis of Difluoro-1,4-dienes

Tomohiro Ichitsuka, Takeshi Fujita, and Junji Ichikawa

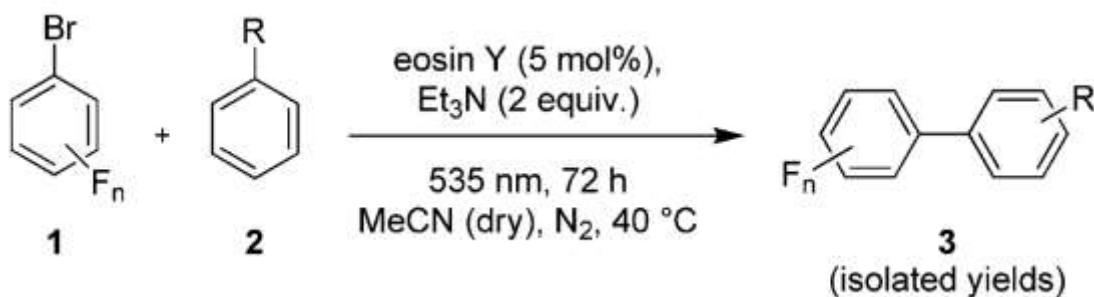
ACS Catal. 2015, 5, 5947–5950



Metal-Free Perfluoroarylation by Visible Light Photoredox Catalysis

Andreas U. Meyer, Tomáš Slanina, Chang-Jiang Yao, and Burkhard König

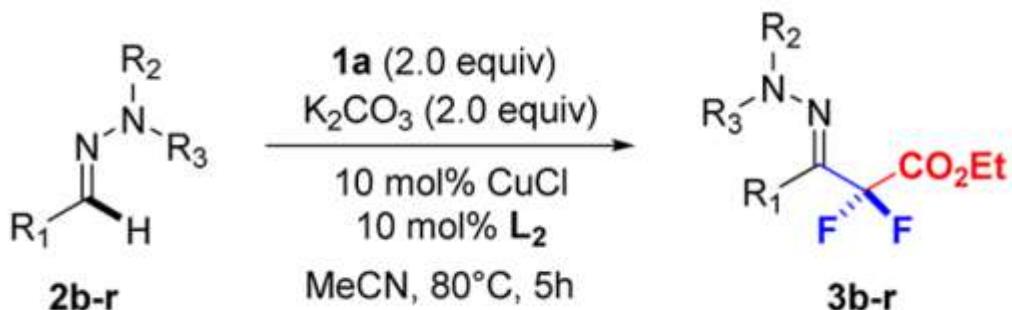
ACS Catal. 2016, 6, 369–375



C–H Difluoroalkylation of Aldehyde Hydrazones with Functionalized Difluoromethyl Bromides under Copper Catalysis

Alexis Prieto, Romain Melot, Didier Bouyssi, and Nuno Monteiro

ACS Catal. 2016, 6, 1093–1096

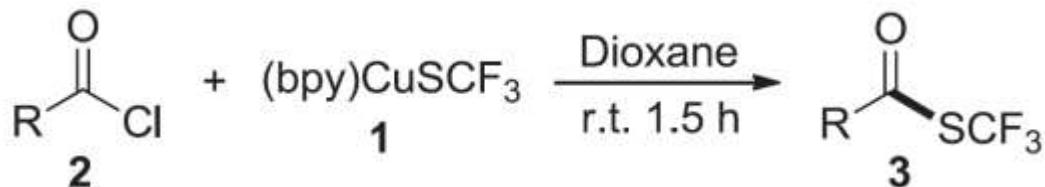


Tetrahedron

Copper-mediated effective synthesis of S-trifluoromethyl esters by trifluoromethylthiolation of acid chlorides

Mengjia Zhang, Jinliang Chen, Zhirong Chen, Zhiqiang Weng

Tetrahedron 2016, 72, 3525-3530

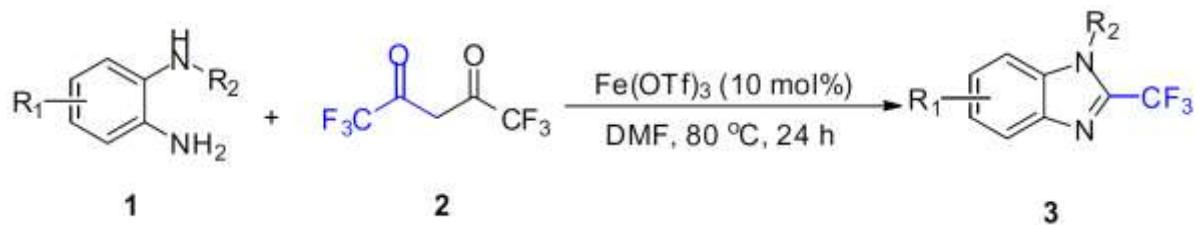


Tetrahedron Letters

Fe(OTf)₃-catalyzed practical synthesis of 2-trifluoromethylarylimidazoles from o-arylenediamines and hexafluoroacetylacetone

Yanmei Zhou, Guanshuo Shen, Yuebo Sui, Haifeng Zhou

Tetrahedron Lett., 2016, 57, 3396-3399

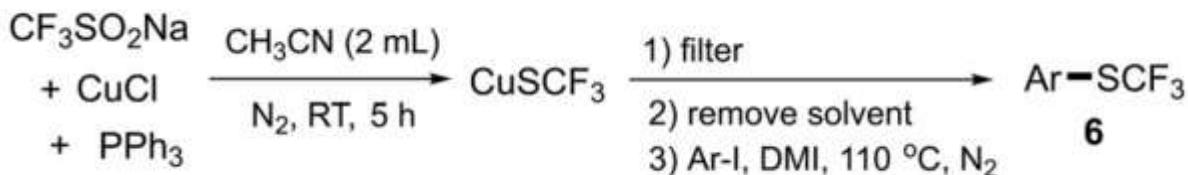


CHEMISTRY A European Journal

Triphenylphosphine-Mediated Deoxygenative Reduction of $\text{CF}_3\text{SO}_2\text{Na}$ and Its Application for Trifluoromethylthiolation of Aryl Iodides

Yi Yang, Long Xu, Siqi Yu, Xiaoqiang Liu, Yu Zhang, and David A. Vicic

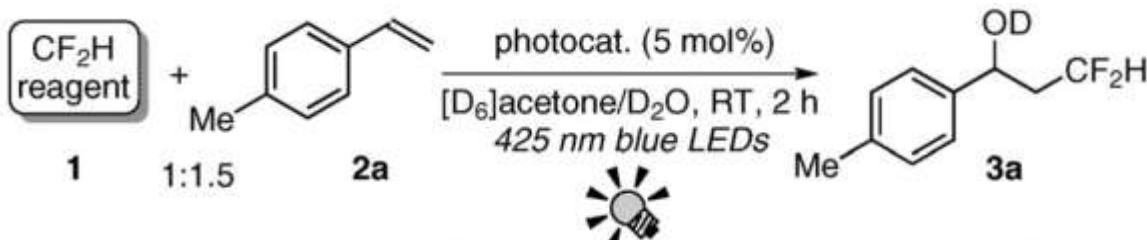
CHEMISTRY A Eur.J., 2016, 22, 858-853



Oxydifluoromethylation of Alkenes by Photoredox Catalysis: Simple Synthesis of CF_2H -Containing Alcohols

Yusuke Arai, Ren Tomita, Gaku Ando, Takashi Koike, and Munetaka Akita

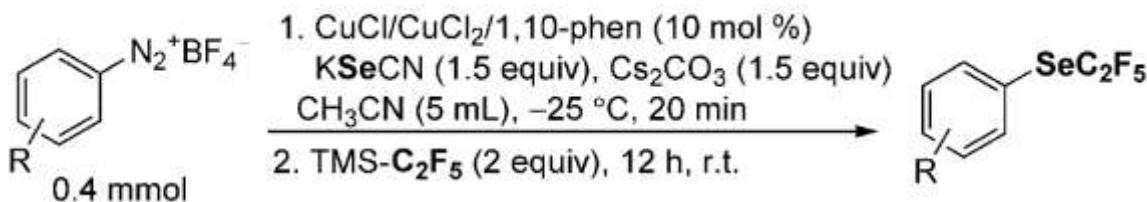
CHEMISTRY A Eur.J., 2016, 22, 1262 – 1265



Trifluoromethylselenolation of Aryldiazonium Salts: A Mild and Convenient Copper-Catalyzed Procedure for the Introduction of the SeCF_3 Group

Pavlo Nikolaienko and Magnus Rueping

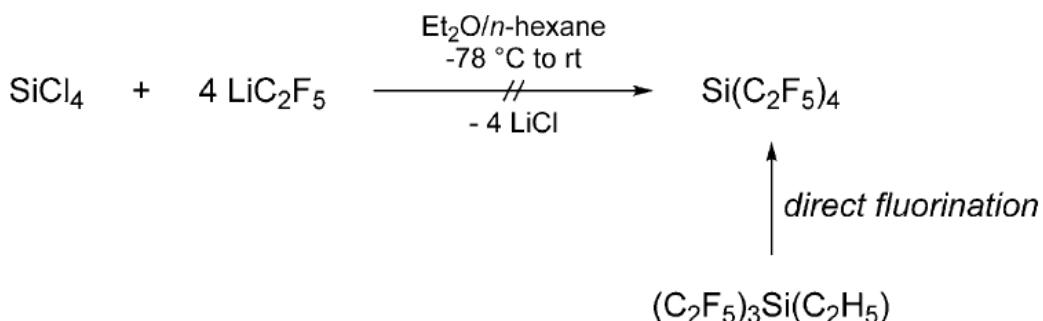
CHEMISTRY A Eur.J., 2016, 22, 2620 – 2623



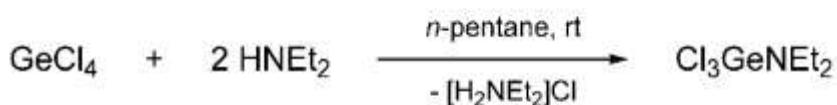
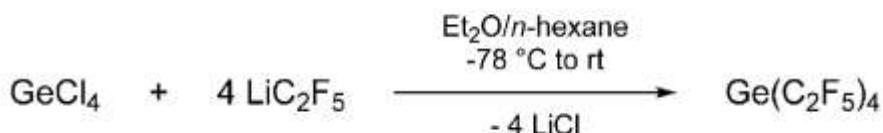
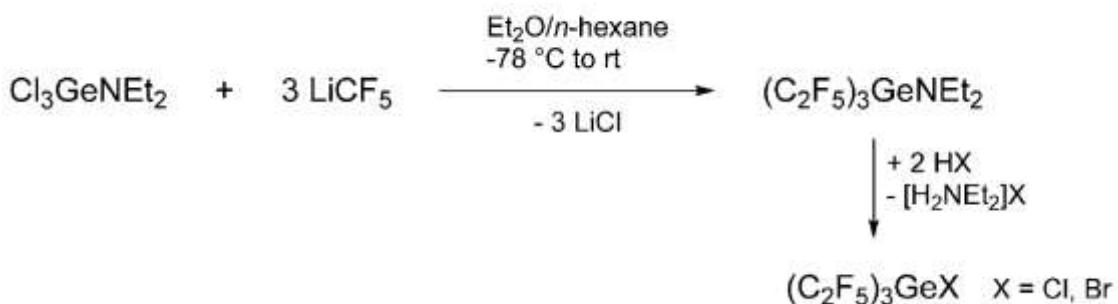
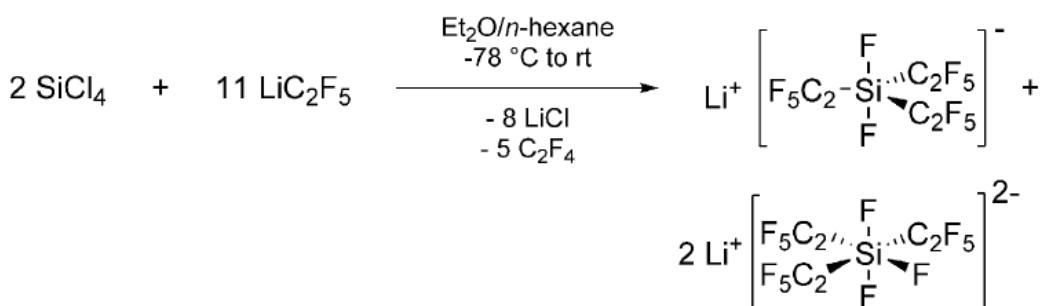
Synthesis of Tris(pentafluoroethyl)germanes

Stefanie Pelzer, Beate Neumann, Hans-Georg Stammler, Nikolai Ignat'ev, and Berthold Hoge

CHEMISTRY A Eur.J., 2016, 22, 3327-3332



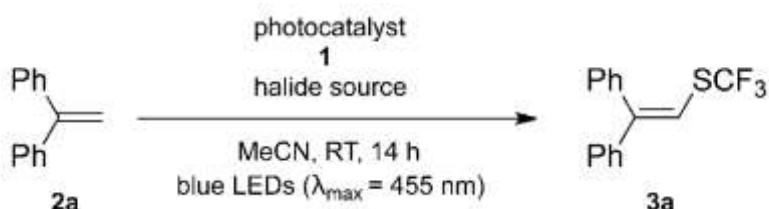
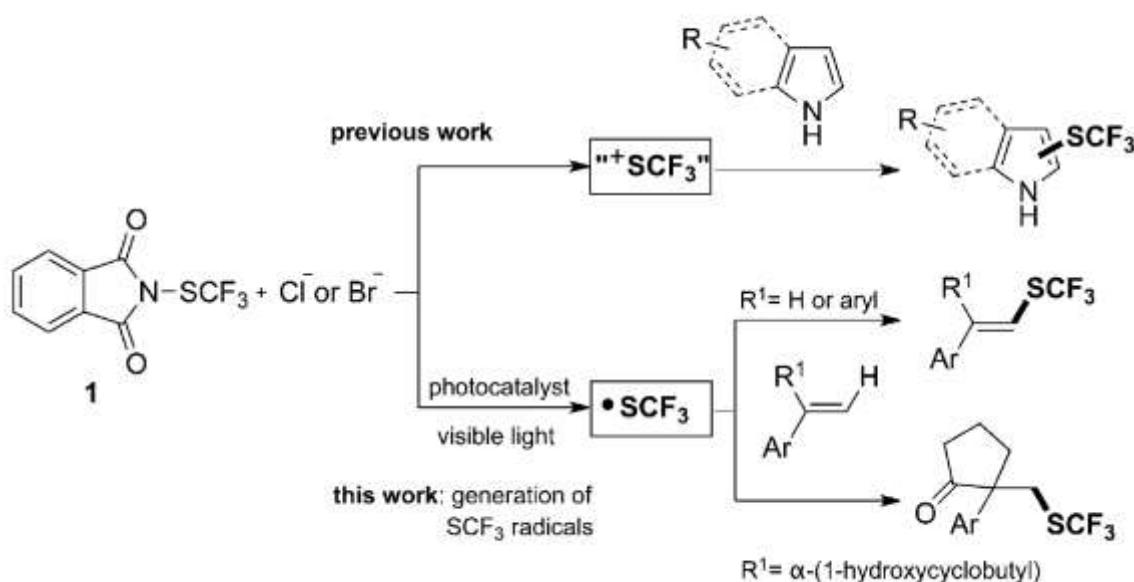
Scheme 1. Synthesis of $\text{Si}(\text{C}_2\text{F}_5)_4$.



Visible-Light-Promoted Trifluoromethylthiolation of Styrenes by Dual Photoredox/Halide Catalysis

Roman Honeker, R. Aleyda Garza-Sanchez, Matthew N. Hopkinson, and Frank Glorius

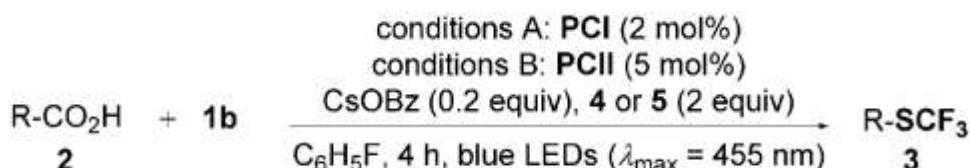
CHEMISTRY A Eur.J., 2016, 22, 4395 - 4399



Visible Light-Promoted Decarboxylative Di- and Trifluoromethylthiolation of Alkyl Carboxylic Acids

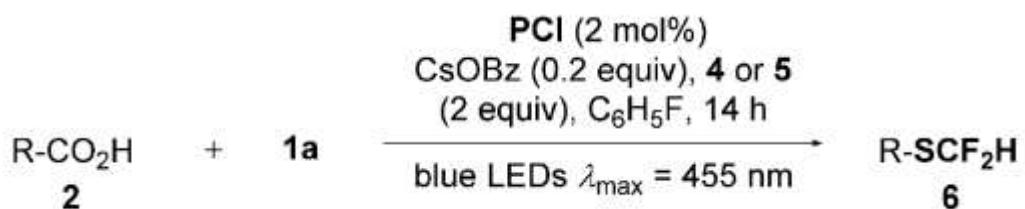
Lisa Candish, Lena Pitzer, Adrián Gómez-Suárez, and Frank Glorius

CHEMISTRY A Eur.J., 2016, 22, 4753 - 4756



photocatalyst $[\text{Ir}(\text{dF(CF}_3\text{ppy})_2(\text{dtbbpy})]\text{PF}_6$ (**PCI**, dF(CF₃)ppy=2-(2,4-difluorophenyl)-5-(trifluoromethyl)pyridine, dtbbpy=4,4'-di-tert-butyl-2,2'-bipyridine)

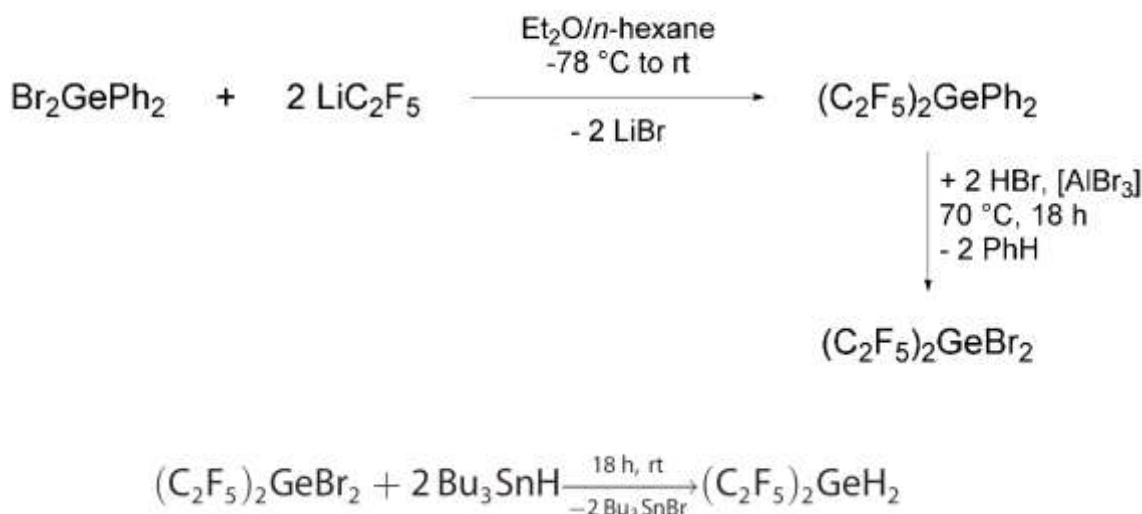
9-mesityl-10-methylacridinium perchlorate (**PCII**)



Synthesis of Bis(pentafluoroethyl)germanes

Stefanie Pelzer, Beate Neumann, Hans-Georg Stammler, Nikolai Ignat'ev, and Berthold Hoge

CHEMISTRY A Eur.J., 2016, 22, 4758 – 4763

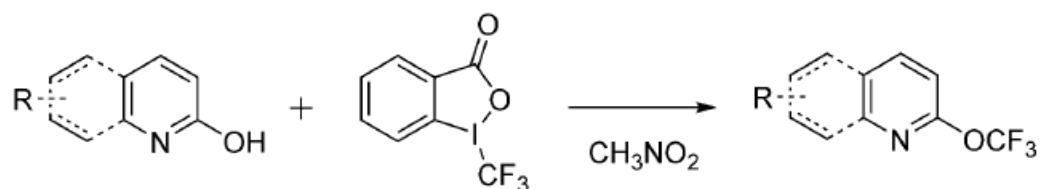


Regioselective Synthesis of N-Heteroaromatic Trifluoromethoxy Compounds by Direct O-CF₃ Bond Formation

Apeng Liang, Shuaijun Han,[Zhenwei Liu, Liang Wang, Jingya Li,Dapeng Zou, Yangjie Wu, and Yusheng Wu

CHEMISTRY A Eur.J., 2016, 22, 5102 – 5106

Trifluoromethylation

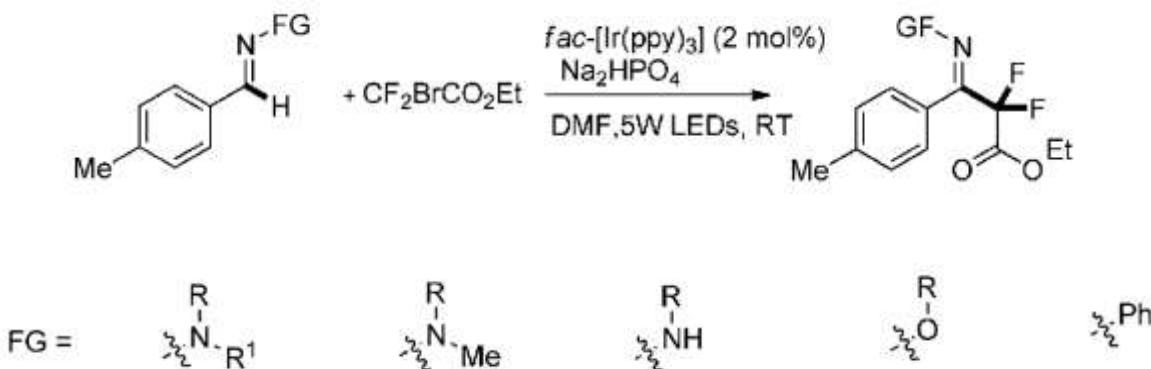


Angew. Chem. Int. Ed.

Visible-Light Photoredox-Catalyzed C-H Difluoroalkylation of Hydrazones through an Aminyl Radical/Polar π Mechanism

Pan Xu, Guoqiang Wang, Yuchen Zhu, Weipeng Li, Yixiang Cheng, Shuhua Li, and Chengjian Zhu

Angew. Chem. Int. Ed., 2016, 55, 2939 –2943

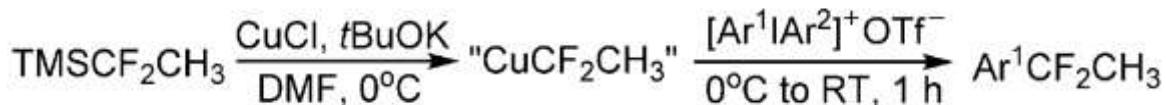


CHEMISTRY An Asian Journal

Copper-Mediated Aromatic 1,1-Difluoroethylation with (1,1-Difluoroethyl)trimethylsilane ($\text{TMSCF}_2\text{CH}_3$)

Xinjin Li, Jingwei Zhao, Yunze Wang, Jian Rong, Mingyou Hu, Dingben Chen, Pan Xiao, Chuanfa Ni, Limin Wang, and Jinbo Hu

CHEMISTRY An Asian J., 2016, 11, 1789 - 1792



Journal of Organic Chemistry

Cycloaddition Chemistry of Tetrafluorothiophene S,S- Dioxide

David M. Lemal

J. Org. Chem. 2016, 81, 4931–4937

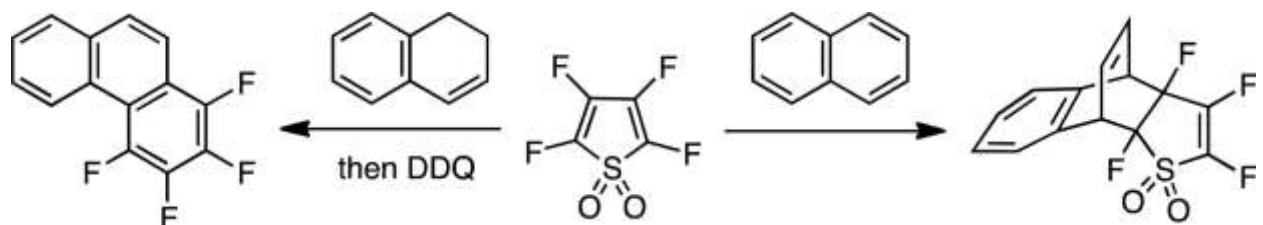


Table 1. Cycloadditions of TFTDO with Alkenes

Addend	Product	Number	Solvent	Conditions	Yield (%) ^a
		7	CHCl ₃	50 °C, 5.5 h	86
		8	CDCl ₃	RT, 12 h	quant.
				50 °C, 3 h	
		9	PhCH ₃	94 °C, 2 h	97
		10	CICH ₂ CH ₂ Cl	RT, 6 h then DDQ	95 ^b
		11	CICH ₂ CH ₂ Cl	RT, 17 h then DDQ	82 ^b
		12	CICH ₂ CH ₂ Cl	85 °C, 17 h then DDQ	83 ^b
		14	CDCl ₃	60 °C, 5 h	60
		17	CH ₃ CN	reflux, 49 h	80

^aBy NMR in this and subsequent tables. ^bFor the initial product.

Table 2. Cycloadditions of TFTDO with Internal Alkynes

Addend	Product	Number	Solvent	Conditions	Yield (%)
		18	PhCl	105-110 °C 24 h	34
		19	PhCH ₃	100 °C 17 h	53
		20	PhCH ₃	100 °C 17 h	~35
		21	CICH ₂ CH ₂ Cl	80 °C 28 h	67

Table 4. Cycloadditions of TFTDO with Conjugated Dienes

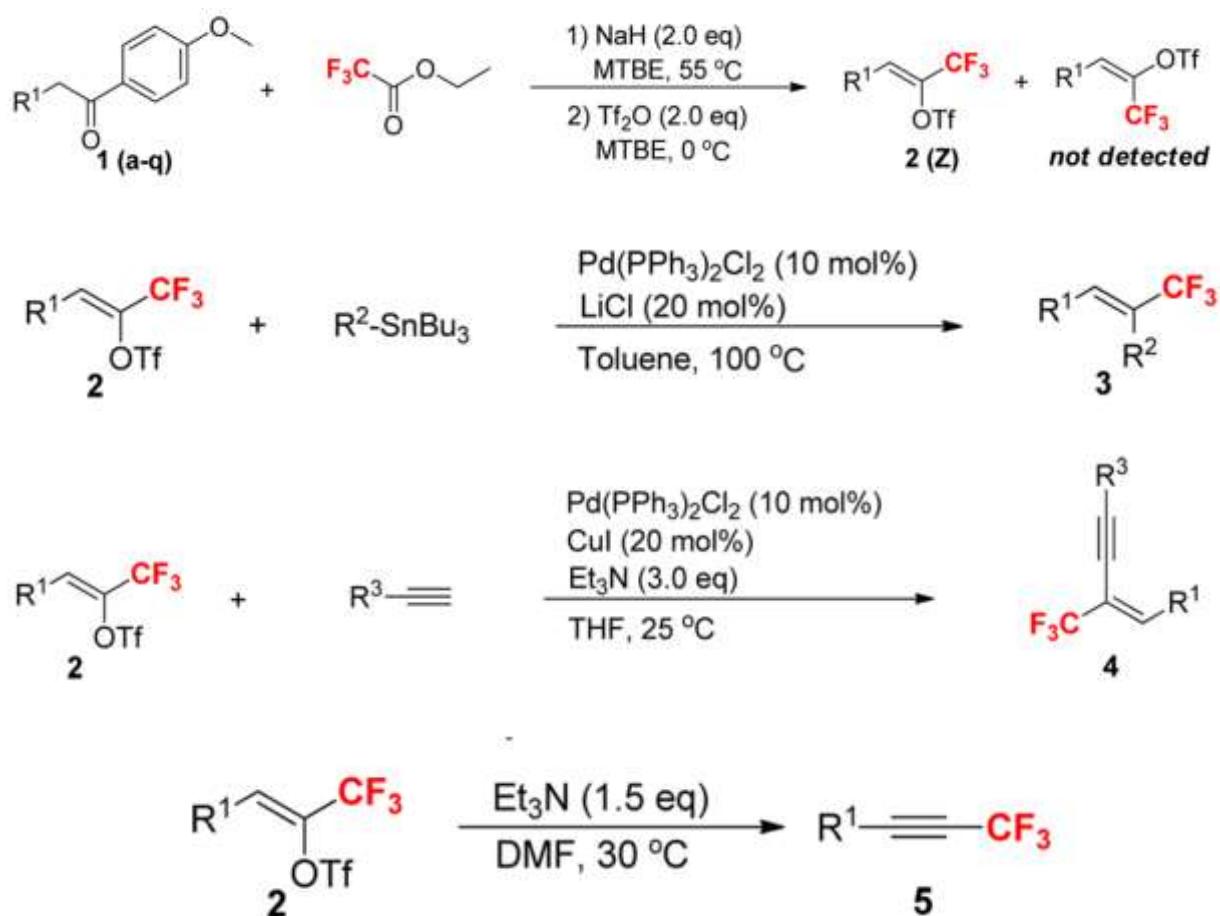
Addend	Product	No.	Endo/Exo	Conditions	Yield (%)
		28		CH_2Cl_2 RT, 17 h	93
		29	5 : 1 ^a	PhCl 105°C , 15 h	74
		30	3 : 1 ^a	neat reflux, ~5 h	62
		31	1 : 19	CH_2Cl_2 RT, 6 h	95
		32	1.5 : 1	CH_2Cl_2 RT, < 1 h	83
		34		$\text{ClCH}_2\text{CH}_2\text{Cl}$ 50°C , 7 h	78
		35		$\text{ClCH}_2\text{CH}_2\text{Cl}$ 80°C , 10 h then DDQ	55 ^b

^aStereochemistry not assigned. ^bFor initial adduct.

Synthesis of (Z)- α -Trifluoromethyl Alkenyl Triflate: A Scaffold for Diverse Trifluoromethylated Species

Yilong Zhao, Yuhang Zhou, Juan Liu, Dongmei Yang, Liang Tao, Yang Liu, Xiaoliang Dong, Jianhui Liu, and Jingping Qu

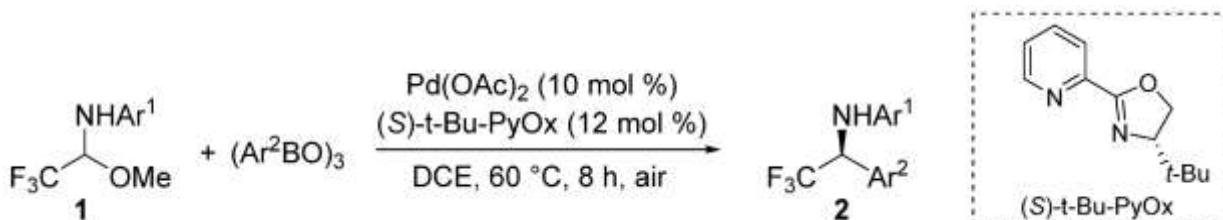
J. Org. Chem. 2016, 81, 4797–4509



Palladium(II)-Catalyzed Enantioselective Synthesis of α -(Trifluoromethyl)arylmethylamines

Thomas Johnson, Bo Luo, and Mark Lautens

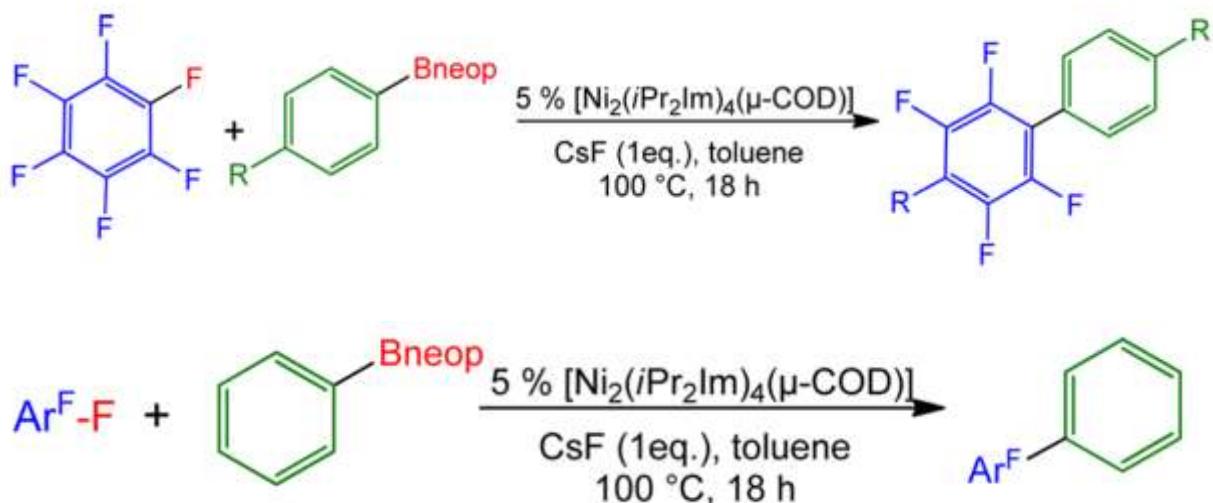
J. Org. Chem. 2016, 81, 4923–4930



NHC Nickel-Catalyzed Suzuki–Miyaura Cross-Coupling Reactions of Aryl Boronate Esters with Perfluorobenzenes

Jing Zhou, Johannes H. J. Berthel, Maximilian W. Kuntze-Fechner, Alexandra Friedrich, Todd B. Marder, and Udo Radius

J. Org. Chem. 2016, 81, 5789–5794

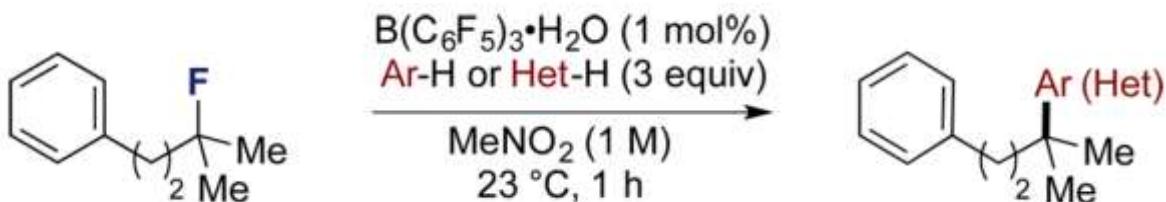


ACSCatalysis

Autocatalytic Friedel–Crafts Reactions of Tertiary Aliphatic Fluorides Initiated by $\text{B}(\text{C}_6\text{F}_5)_3 \cdot \text{H}_2\text{O}$

Marian Dryzhakov and Joseph Moran

ACS Catal. 2016, 6, 3670–3673

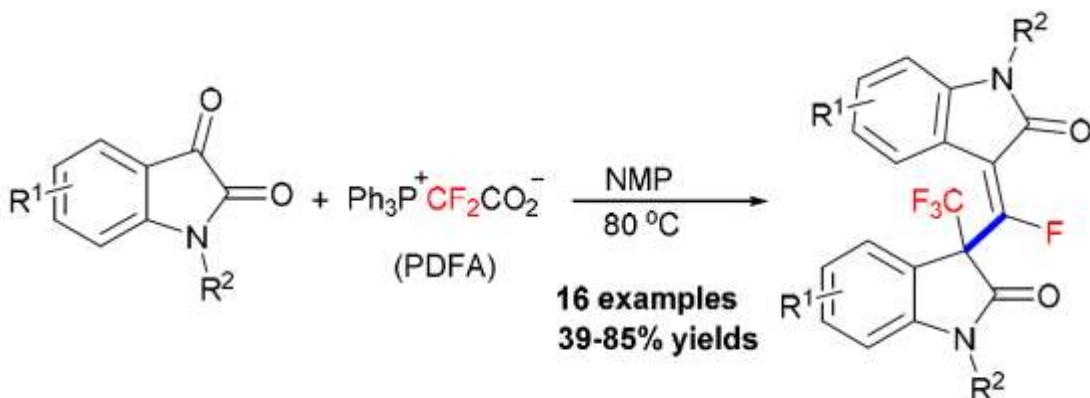


Chemical Communications

Synthesis of 3-Fluoroalkenyl-3-trifluoromethyl-2-oxindoles by the Reaction of Indoline-2,3-diones with Difluoromethylene Phosphabetaine

Yingle Liu, Ke Zhang, Yangen Huang, Shen Pan, Xiao-Qiang Liu, Yi Yang, Yan Jiang and Xiu-Hua Xu

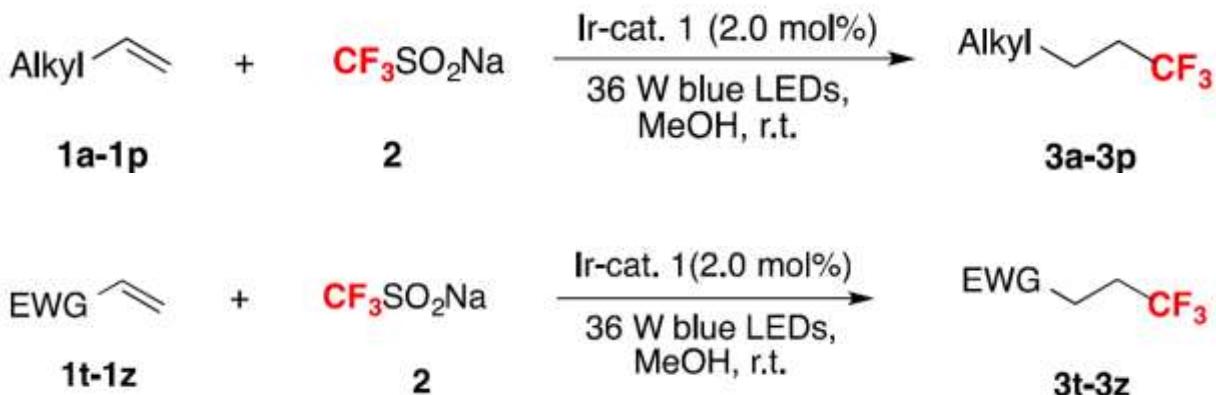
Chem. Commun., 2016, 52, 5969-5972



Operationally Simple Hydrotrifluoromethylation of Alkene with Sodium Trifinate Enabled by Ir-Photoredox Catalysis

Lei Zhu, Lian-Sheng Wang, Bojie Li, Boqiao Fu, Cheng-Pan Zhang and Wei Li

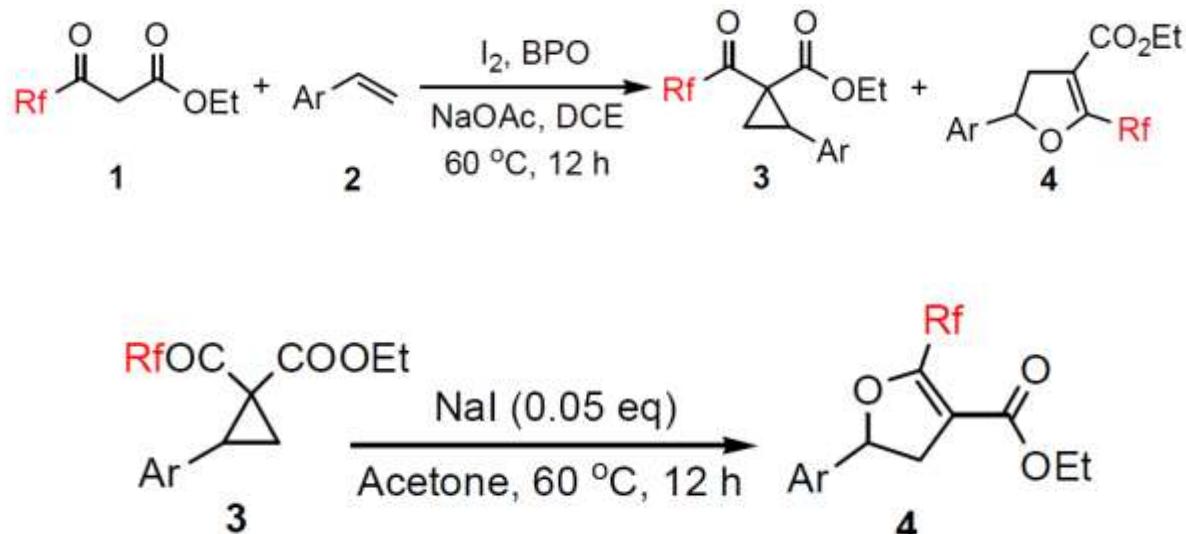
Chem. Commun., 2016, 52, 6371-6374



**Transition Metal-Free Generation of the Acceptor/Acceptor-Carbene
via α -Elimination: Synthesis of Fluoroacetyl Cyclopropanes**

Yongdong Wang, Jing Han, Jie Chen, and Weiguo Cao

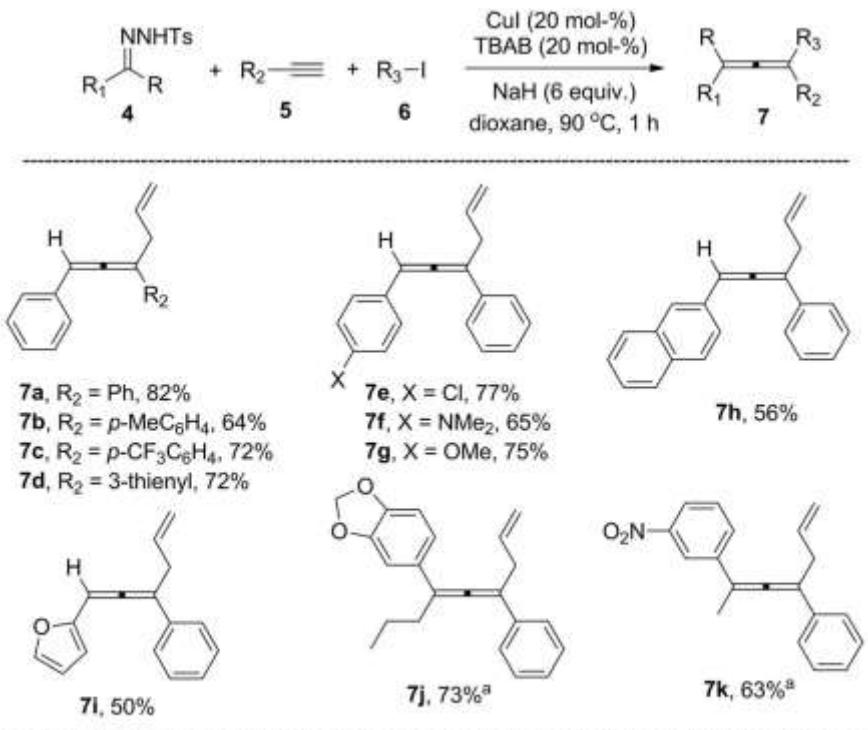
Chem. Commun., 2016, 52, 6817-6820



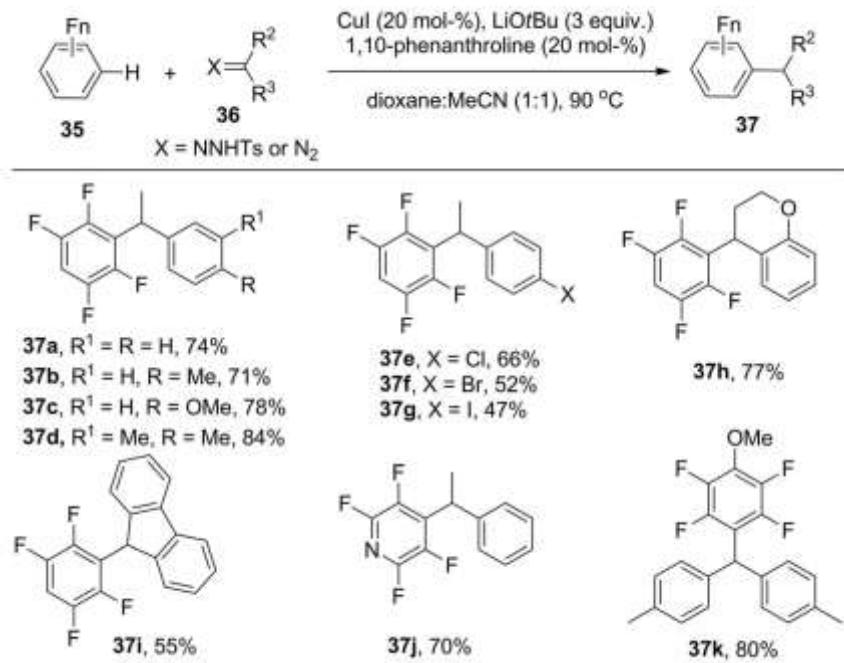
Copper-Catalyzed Direct Cross-Coupling of Compounds Containing Activated C–H/Heteroatom–H Bonds with *N*-tosylhydrazones

Amol P. Jadhav, Devalina Ray, V. U. Bhaskara Rao, and Ravi P. Singh

Eur.J. Org.Chem., 2016, 2369-2382



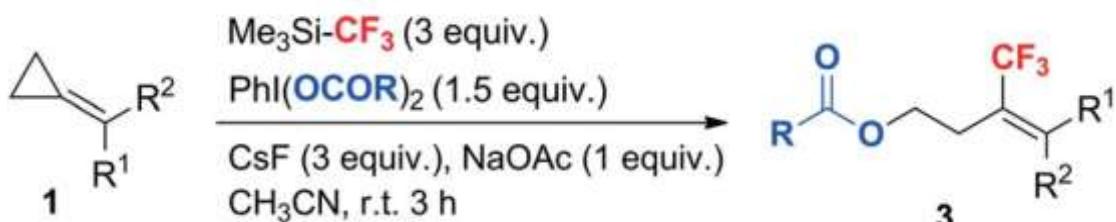
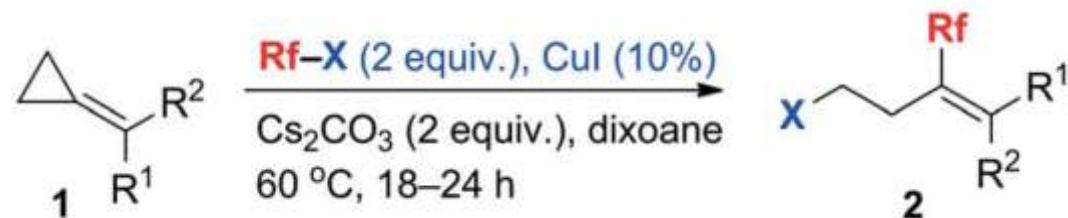
^a [Cu(MeCN)₄]PF₆ (20 mol-%), 1,10-phenanthroline (20 mol-%) and NaH (5 equiv.) was used instead of CuI (20 mol-%) and NaH (6 equiv.) at 110°C .



Synthesis of Fluorinated Homoallylic Compounds by Fluoroalkyl Radical Mediated Ring Opening of Methylenecyclopropanes

Huajun Xie and Bo Xu

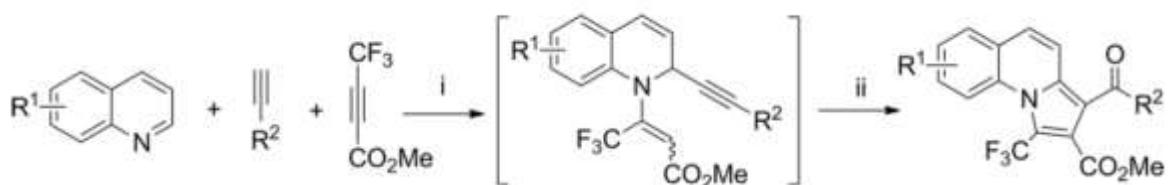
Eur.J. Org.Chem., 2016, 2594-2598



Copper-Catalyzed C–H Alkynylation/Intramolecular Cyclization Cascade for the First Synthesis of Trifluoromethylated Pyrrolo[1,2-a]quinolines

Zhiliang Xu, Fei Ni, Jing Han, Lili Tao, Hongmei Deng, Min Shao, Jie Chen, Hui Zhang and Weiguo Cao

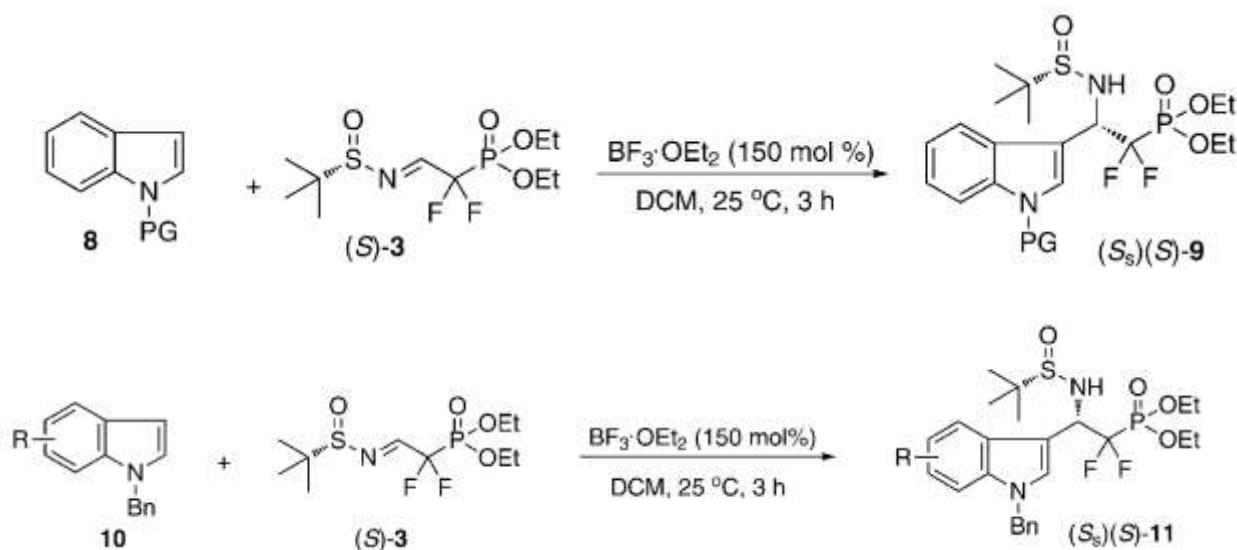
Eur.J. Org.Chem., 2016, 2959-2965



New Chiral Reagent for Installation of Pharmacophoric (S)- or (R)-2-(Alkoxyphosphono)-1-amino-2,2-difluoroethyl Group

Chen Xie, Lijun Zhang, Haibo Mei, Romana Pajkert, Maksym Ponomarenko, Yi Pan, Gerd-Volker Röschenthaler, Vadim A. Soloshonok, and Jianlin Han

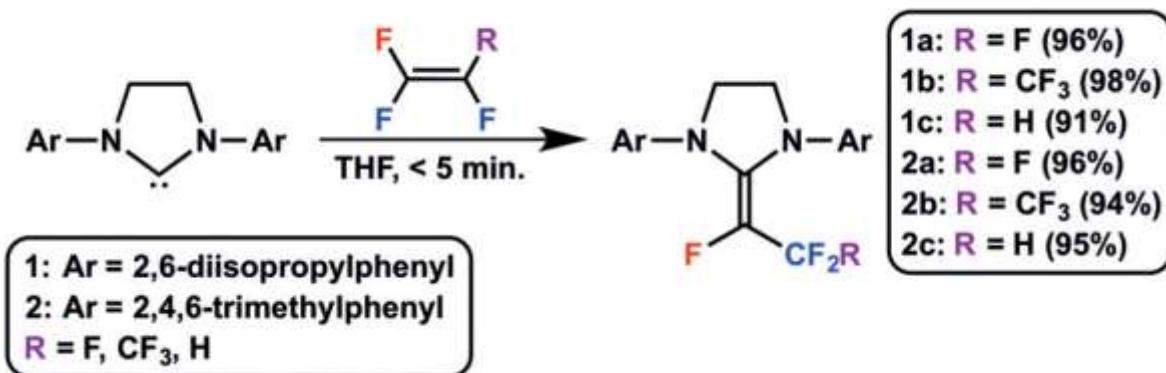
CHEMISTRY A Eur.J., 2016, 22, 7036-7040



Selective Activation of Fluoroalkenes with N-Heterocyclic Carbenes: Synthesis of N-Heterocyclic Fluoroalkenes and Polyfluoroalkenyl Imidazolium Salts

Matthew C. Leclerc, Serge I. Gorelsky, Bulat M. Gabidullin, Ilia Korobkov, and R. Tom Baker

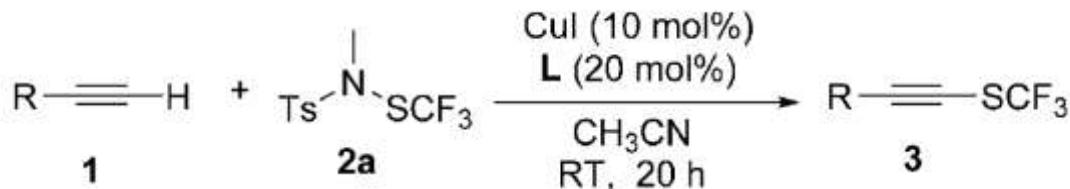
CHEMISTRY A Eur.J., 2016, 22, 8063-8067



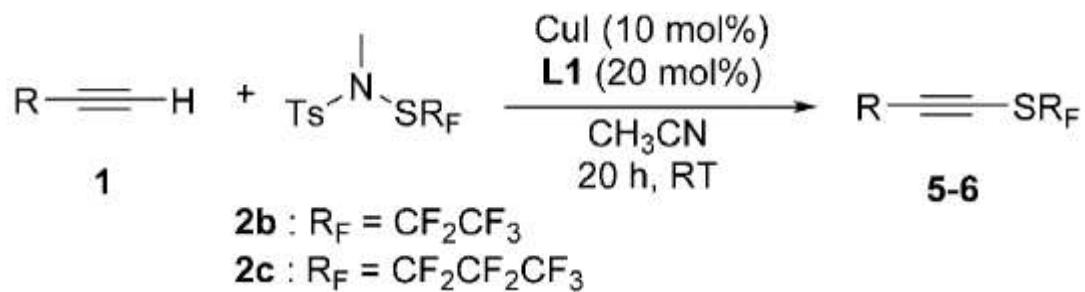
**Copper-Catalyzed Perfluoroalkylthiolation of Alkynes with
Perfluoroalkanesulfenamides**

Anis Tlili, Sébastien Alazet, Quentin Glenadel, and Thierry Billard

CHEMISTRY A Eur.J., 2016, 22, 10230-10234



L1 : 2,2'-bipyridine / **L2** : 1,10-phenanthroline

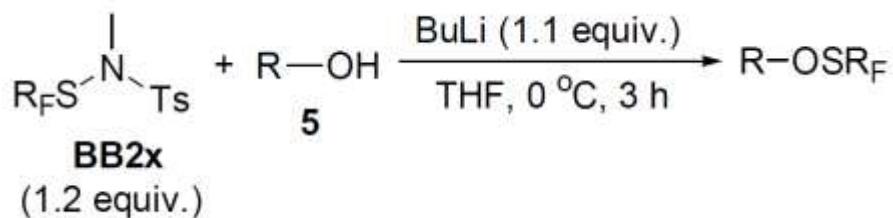


Chinese Journal of Chemistry

Direct Perfluoroalkylthiolation of Few Chalcogenols

Quentin Glenadela and Thierry Billard

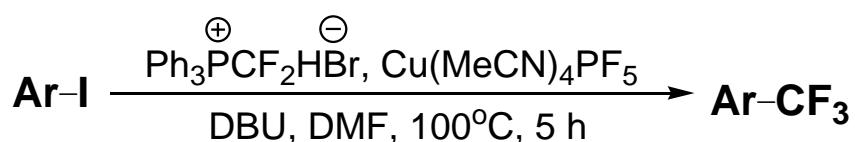
Chin.J.Chem. 2016, 34, 455-458



DBU-Promoted Trifluoromethylation of Aryl Iodides with Difluoromethyltriphenylphosphonium Bromide

Yun Wei, Liuying Yu, Jinhong Lin, Xing Zheng, and Jichang Xiao

Chin.J.Chem. 2016, 34, 481-484

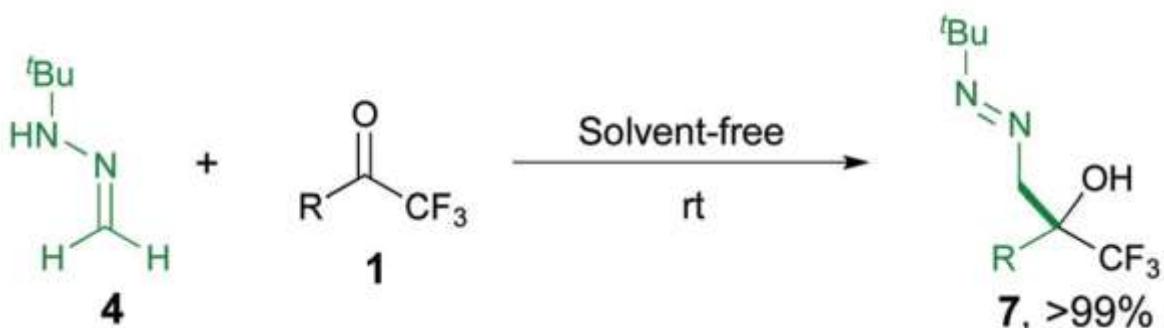


Green Chemistry

Solvent-free synthesis of quaternary α -hydroxy α -trifluoromethyl diazenes: the key step of a nucleophilic formylation strategy

Esteban Matador, David Monge, Rosario Fernández and José M. Lassaletta

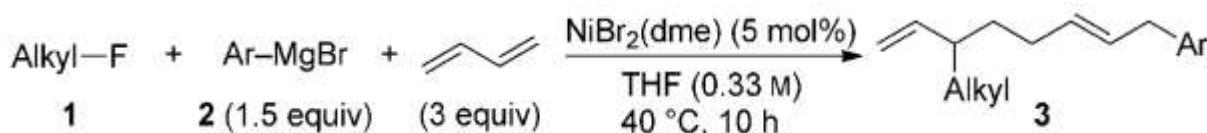
Green.Chem. 2016, 18, 4042-4050



Nickel-Catalyzed Dimerization and Alkylarylation of 1,3-Dienes with Alkyl Fluorides and Aryl Grignard Reagents

Takanori Iwasaki, Xin Min, Asuka Fukuoka, Hitoshi Kuniyasu, and Nobuaki Kambe

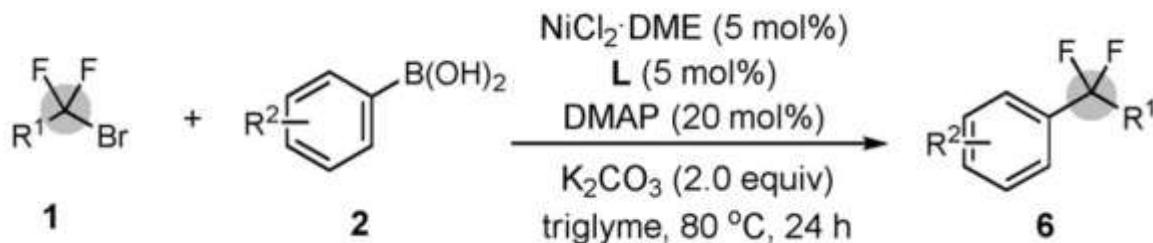
Angew. Chem. Int. Ed., 2016, 55, 5550-5554



Nickel-Catalyzed Difluoroalkylation of (Hetero)Arylborons with Unactivated 1-Bromo-1,1-difluoroalkanes

Yu-Lan Xiao, Qiao-Qiao Min, Chang Xu, Ruo-Wen Wang, and Xingang Zhang

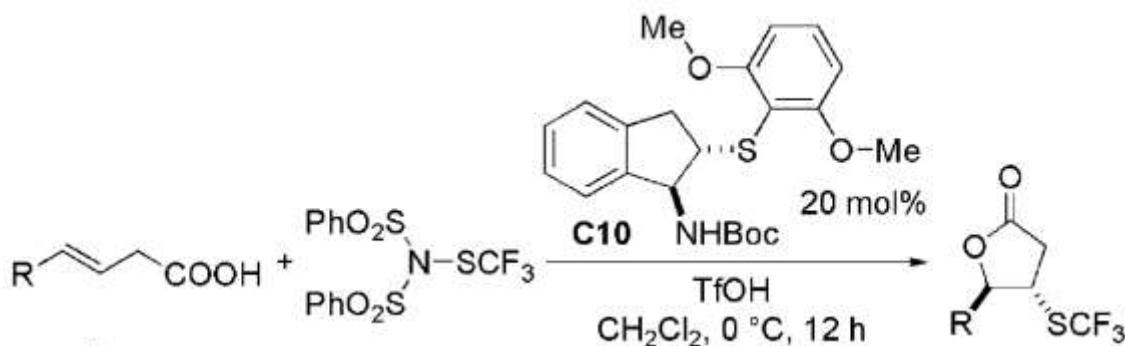
Angew. Chem. Int. Ed., 2016, 55, 5837-5841



Enantioselective Trifluoromethylthiolating Lactonization Catalyzed by an Indane-Based Chiral Sulfide

Xiang Liu, Rui An, Xuelin Zhang, Jie Luo, and Xiaodan Zhao

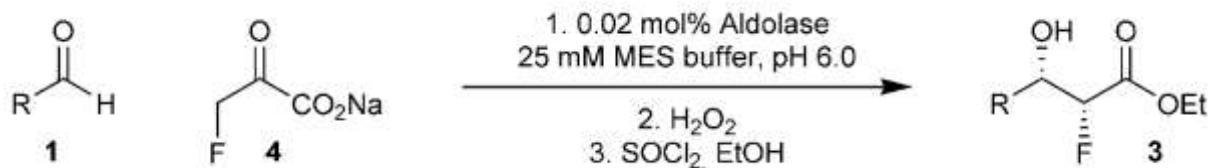
Angew. Chem. Int. Ed., 2016, 55, 5846-5850



An Enantio- and Diastereoselective Chemoenzymatic Synthesis of α -Fluoro β -Hydroxy Carboxylic Esters

James K. Howard, Marion Moller, Alan Berry, and Adam Nelson

Angew. Chem. Int. Ed., 2016, 55, 6767-6770



C-C Coupling of Benzyl Fluorides Catalyzed by an Electrophilic Phosphonium Cation

Jiangtao Zhu, Manuel Pérez, and Douglas W. Stephan

Angew. Chem. Int. Ed., 2016, 55, 8448-8451

