

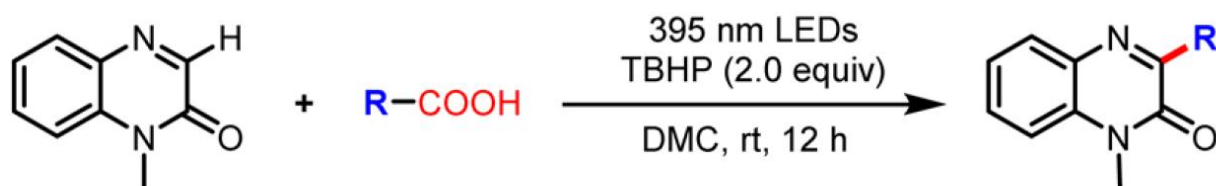
Green Chemistry

Photoinduced, metal- and photosensitizer-free decarboxylative C–H (amino)alkylation of heteroarenes in a sustainable solvent

Jun Xu, Chenfeng Liang, Jiabin Shen, Qing Chen, Wanmei Li and Pengfei Zhang

Green Chem., 2023, 25, 1975

<https://doi.org/10.1039/D2GC04909K>



29 examples
yield up to 84%

Synthesis

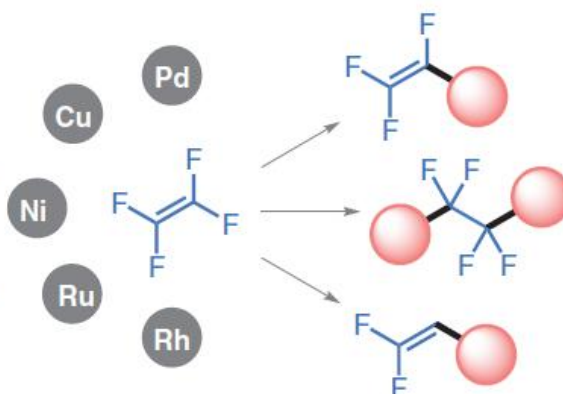
Transformation of Tetrafluoroethylene Using Transition-Metal Complexes

Ryohei Doi, Yuyang Zhou, Sensuke Ogoshi

Synthesis, 2023, 55(06), 857-867

<https://doi.org/10.1055/a-1983-5059>

- Cross Coupling
 - Fluoroalkylation
 - Multi-component Couplings
 - Olefin Metathesis
- ...of **TFE!!**

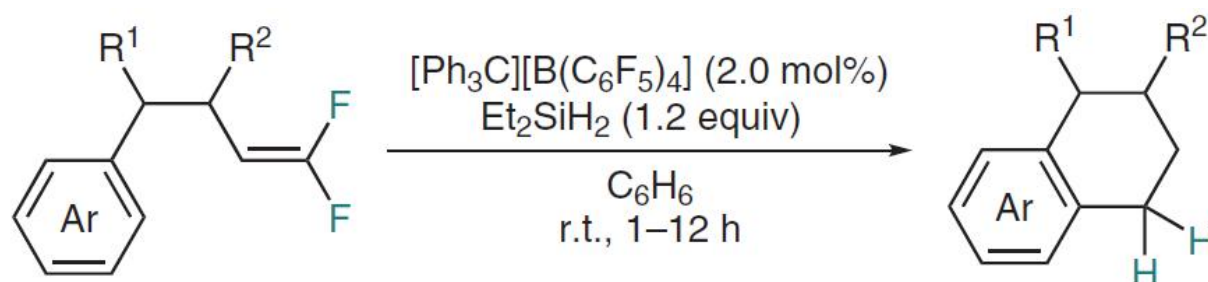


Silylium Ion Initiated Intramolecular Friedel–Crafts-Type Cyclization of 1,1-Difluoroalkenes with Subsequent Hydrodefluorination of C(sp³)–F Bonds

Avijit Roy, Haopeng Gao, Hendrik F. T. Klare, Martin Oestreich

Synthesis, 2023, 55, 1602–1612

<https://doi.org/10.1055/a-2009-8114>



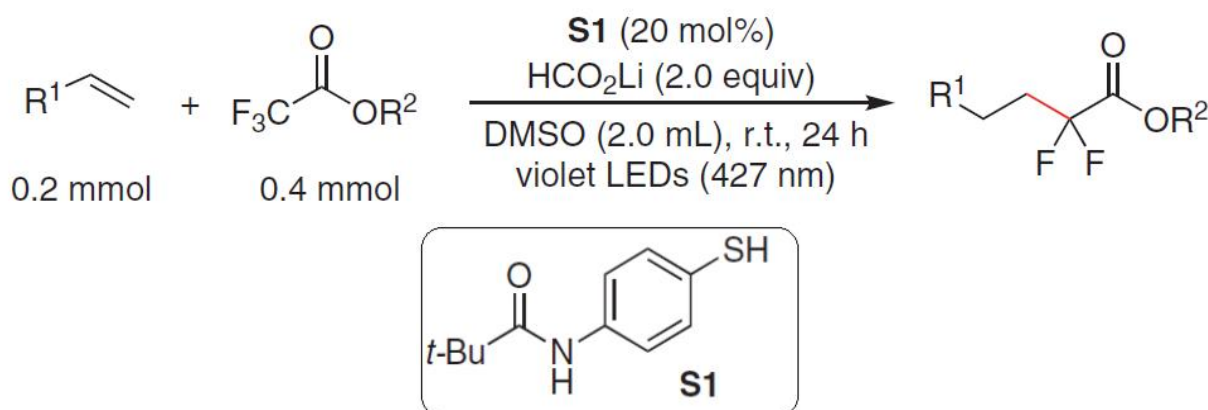
12 examples
yield up to 99%

Photocatalytic Defluoroalkylation of Trifluoroacetates with Alkenes using 4-(Acetamido)thiophenol

Can Liua, Ni Shena, Rui Shang

Synthesis 2023, 55, 1401–1409

<https://doi.org/10.1055/a-2019-1532>



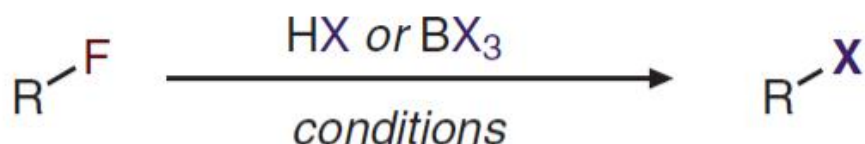
29 examples
yield up to 93%

Improvements in Efficiency and Selectivity for C–F Bond Halogen-Exchange Reactions by Using Boron Reagents

Andrej Ćorković, Andreas Dorian, Florence J. Williams

Synlett, 2023, 34, 193–202

<https://doi.org/10.1055/a-1941-2205>



25 examples
yield up to 96%

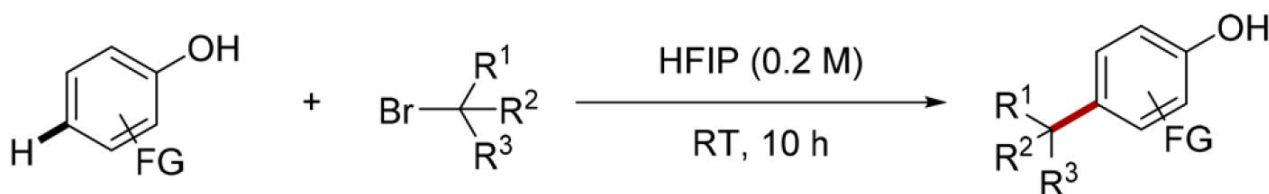
Organic Chemistry Frontiers

HFIP-promoted para-selective alkylation of anilines and phenols with tertiary alkyl bromides

Pengcheng Huang, Xipeng Jiang, Du Gao, Cheng Wang, Da-Qing Shi, Yingsheng Zhao

Org. Chem. Front., 2023, 10, 2476

<https://doi.org/10.1039/d3qo00342f>



15 examples
yield up to 96%

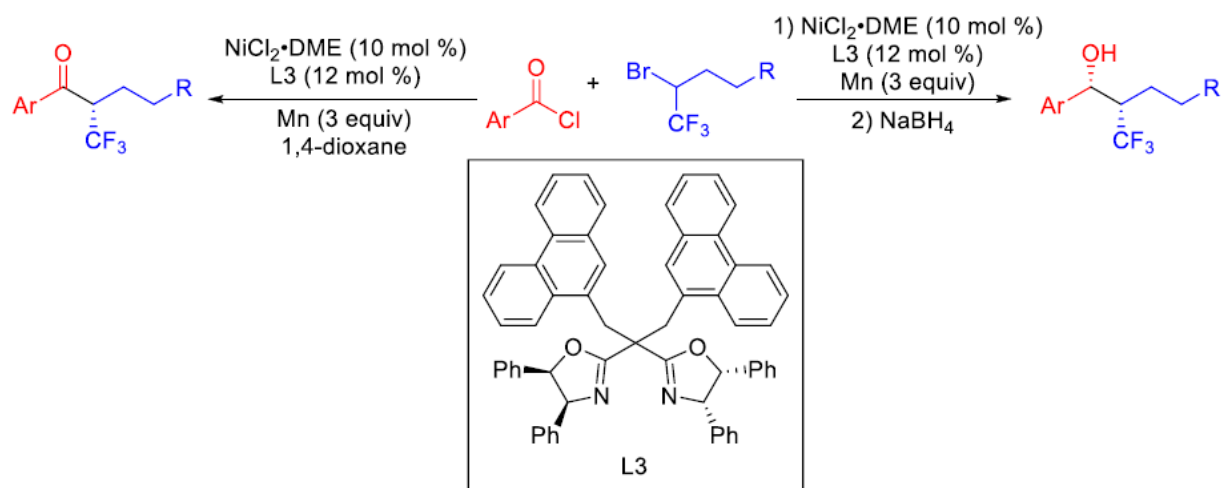
Organic Process Research & Development

Recent Advances in Nonprecious Metal Catalysis

Michael C. Haibach, Shashank Shekhar, Tonia S. Ahmed, and Andrew R. Ickes

Org. Process Res. Dev., 2023, 27, 3, 423–447

<https://doi.org/10.1021/acs.oprd.2c00344>

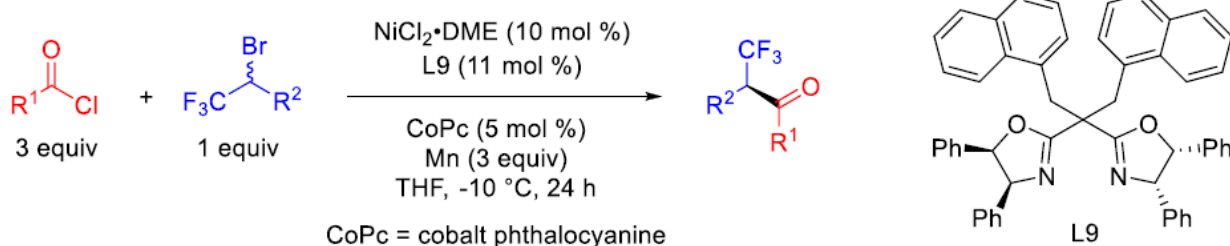


Wu, B.-B.; Xu, J.; Bian, K.-J.; Gao, Q.; Wang, X.-S.

Enantioselective Synthesis of Secondary β -Trifluoromethyl Alcohols via Catalytic Asymmetric Reductive Trifluoroalkylation and Diastereoselective Reduction.

J. Am. Chem. Soc. 2022, 144 (14), 6543–6550.

6 examples
yield up to 90%

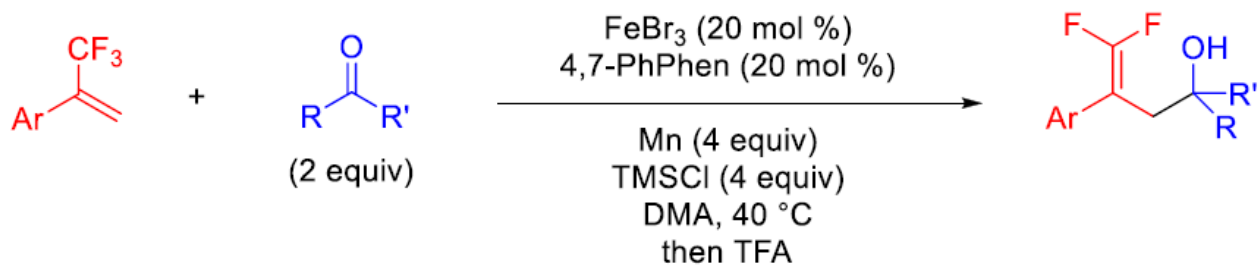


Wu, J.; Wu, H.; Liu, X.; Zhang, Y.; Huang, G.; Zhang, C.

Nickel-Catalyzed Cross-Coupling of Acyl Chloride with Racemic α -Trifluoromethyl Bromide to Access Chiral α -Trifluoromethyl Ketones.

Org. Lett. 2022, 24 (24), 4322–4327.

7 examples
yield up to 95%



Zhang, C.; Wang, L.; Shi, H.; Lin, Z.; Wang, C.
Iron-Catalyzed Allylic Defluorinative Ketone Olefin Coupling.
Org. Lett. 2022, 24 (17), 3211–3216.

7 examples
yield up to 94%