

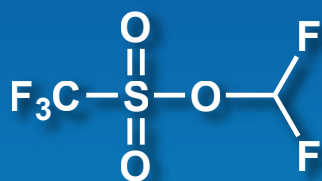
New

CHEMISTRY

LIFE SCIENCE

TCI®

Efficient, Easy-to-Handle, and Environmentally Benign Difluoromethylating Agent



Difluoromethyl Triflate

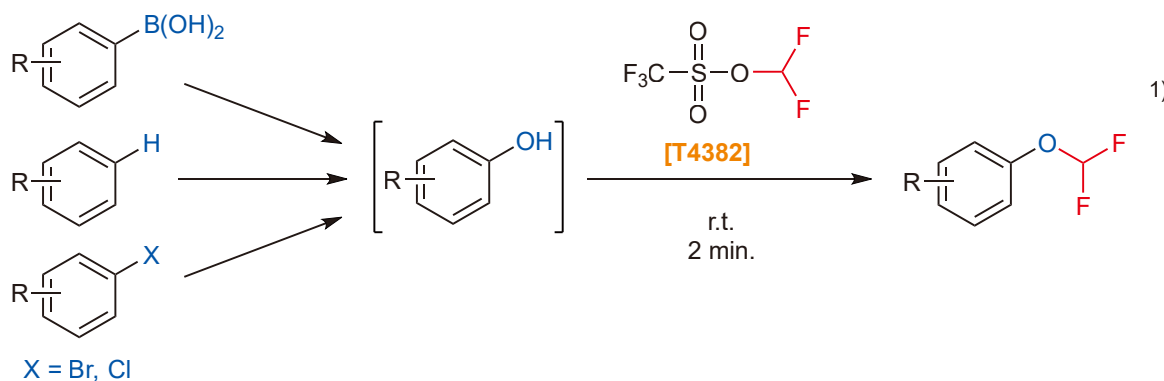
1g / 5g

[T4382]

Advantages

- Realizes efficient and selective introduction of difluoromethyl (CHF₂) groups into hydroxy groups in phenols.
- Enables reactions to proceed within minutes at room temperature due to its high reactivity.
- Has exceptional functional group tolerance with broad applicability to complex molecular structures.
- Allows one-pot incorporation of difluoromethoxy groups from arylboronic acids, aryl halides, and arenes.

Difluoromethyl ethers are increasingly used in pharmaceuticals, agrochemicals, and materials. However, conventional methods for the synthesis of difluoromethyl ethers rely on chlorodifluoromethane (HCF₂Cl), an ozone-depleting gas that is difficult to handle. This product is a non-ozone-depleting liquid reagent that serves as an effective alternative to HCF₂Cl. Using this method, difluoromethyl ethers can be synthesized in minutes at room temperature.



References 1) P. S. Fier, J. F. Hartwig, *Angew. Chem. Int. Ed.* **2013**, *52*, 2092. <https://doi.org/10.1002/anie.201209250>
2) G. Landelle et al., *J. Fluor. Chem.* **2017**, *203*, 155. <https://doi.org/10.1016/j.jfluchem.2017.08.006>

Related Products

Diethyl (Bromodifluoromethyl)phosphonate

5g / 25g [D3071]

2,2-Difluoroethyl Trifluoromethanesulfonate

1g / 5g [D5299]

Difluoroiodomethane (ca. 45%, ca. 3.0mol/L in Acetonitrile)

5mL [D5762]

Ordering and Customer Service

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