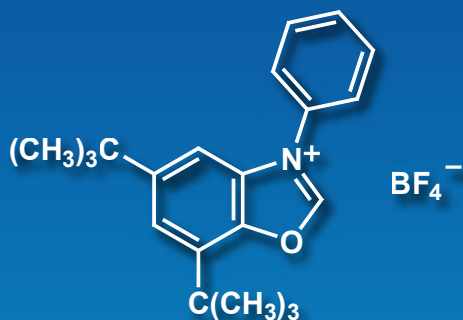


New

CHEMISTRY

TGI

NHC Reagent for Redox Activation of Alcohols: Deoxazole



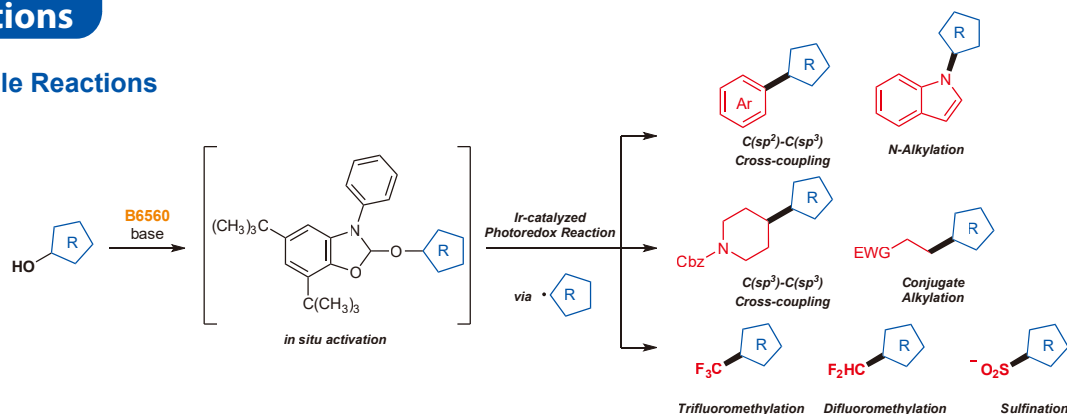
Deoxazole
1g / 10g
[B6560]

Advantages

- Activates aliphatic alcohols *in situ* and enables diverse transformations via photoredox catalysis
- Allows the use of abundant alcohols as alkyl radical sources
- Realizes short-step synthesis of sp^3 -rich compounds in drug discovery research

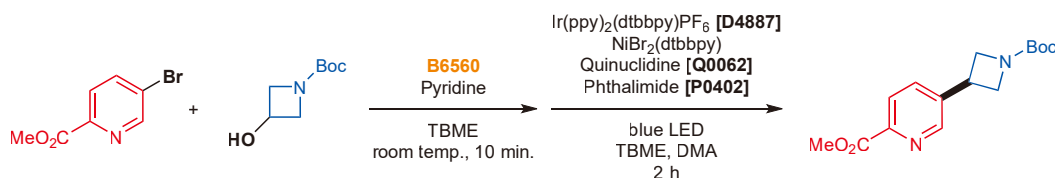
Applications

Applicable Reactions

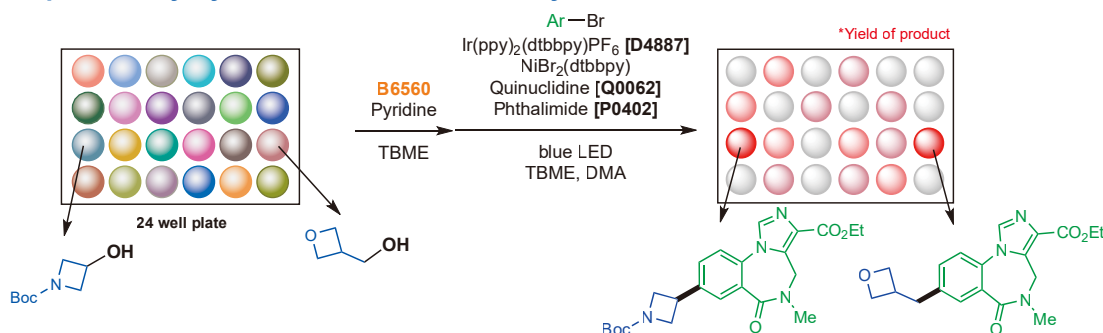


B6560 activates alcohols via redox chemistry to generate alkyl radicals through single-electron oxidation. The resulting radicals can undergo a wide range of transformations, including C–C and C–N bond formation, trifluoromethylation, difluoromethylation, and sulfinylation.

C(sp²)-C(sp³) Cross-coupling between Aryl Bromides and Aliphatic Alcohols ¹⁾



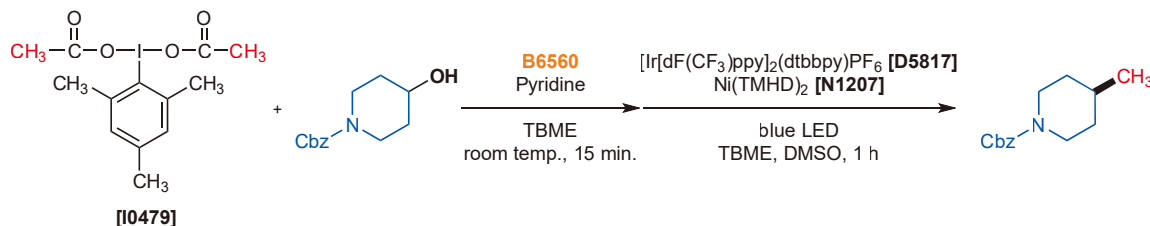
Highthrouput Library Synthesis with Automated Synthesis Machine ²⁾



NHC Reagent for Redox Activation of Alcohols: Deoxazole

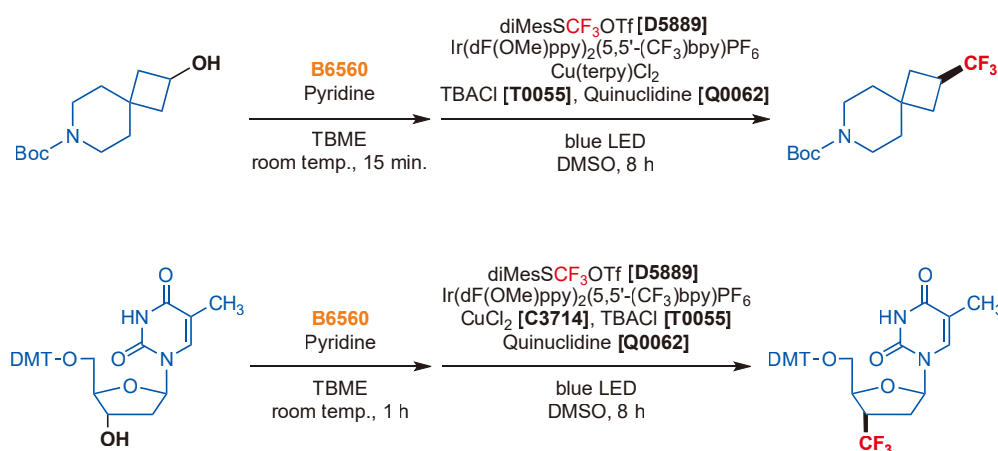
Applications

C(sp³)-C(sp³) Cross-coupling between Hypervalent Iodine Compounds and Aliphatic Alcohols³⁾



Iodomesitylene diacetate **[I0479]**, a hypervalent iodine compound, is a commercially-accessible and user-friendly methylating agent. Iodomesitylene diacetate enables ester exchange with specific aliphatic carboxylic acids, and the resulting hypervalent iodine compounds can be used directly in this reaction without purification.³⁾

Trifluoromethylation of Aliphatic Alcohols⁴⁾



This method is also effective for introducing trifluoromethyl groups into nucleic acid-related and drug-like compounds.⁴⁾

- References**
- 1) Z. Dong *et al.*, *Nature* **2021**, 598, 451. <https://doi.org/10.1038/s41586-021-03920-6>
 - 2) W. Liu *et al.*, *ACS Med. Chem. Lett.* **2023**, 14, 853. <https://doi.org/10.1021/acsmchemlett.3c00118>
 - 3) H. A. Sakai *et al.*, *J. Am. Chem. Soc.* **2022**, 144, 6185. <https://doi.org/10.1021/jacs.2c02062>
 - 4) N. E. Intermaggio *et al.*, *J. Am. Chem. Soc.* **2022**, 144, 11961. <https://doi.org/10.1021/jacs.2c04807>

Related Products

Ir[(ppy)₂(dtbbpy)]PF₆	200mg [D4887]
Quinuclidine	200mg / 1g / 5g [Q0062]
Phthalimide	25g / 500g [P0402]
Iodomesitylene Diacetate	5g / 25g [I0479]
[Ir(dF(CF₃)ppy)₂(dtbbpy)]PF₆	200mg / 1g [D5817]
Nickel(II) Bis(2,2,6,6-tetramethyl-3,5-heptanedionate) (= Ni(TMHD)₂)	1g / 5g / 25g [N1207]
Dimesityl(trifluoromethyl)sulfonium Trifluoromethanesulfonate (= diMesSCF₃OTf)	1g / 10g [D5889]
Tetrabutylammonium Chloride (= TBACl)	5g / 25g / 100g [T0055]
Copper(II) Chloride Anhydrous	25g / 500g [C3714]

Ordering and Customer Service

TCI AMERICA

Tel : 800-423-8616 / 503-283-1681
Fax : 888-520-1075 / 503-283-1987
E-mail : Sales-US@TCIchemicals.com

TCI EUROPE N.V.

Tel : +32 (0)3 735 07 00
Fax : +32 (0)3 735 07 01
E-mail : Sales-EU@TCIchemicals.com

TCI Deutschland GmbH

Tel : +49 (0)6196 64053-00
Fax : +49 (0)6196 64053-01
E-mail : Sales-DE@TCIchemicals.com

Tokyo Chemical Industry UK Ltd.

Tel : +44 (0)1865 78 45 60
E-mail : Sales-UK@TCIchemicals.com

梯希爱(上海)化成工业发展有限公司

Tel : 800-988-0390 / 021-67121386
Fax : 021-6712-1385
E-mail : Sales-CN@TCIchemicals.com

Tokyo Chemical Industry (India) Pvt. Ltd.

Tel : 1800 425 7889 / 044-2262 0909
E-mail : Sales-IN@TCIchemicals.com

TOKYO CHEMICAL INDUSTRY CO., LTD.

Tel : +81 (0)3-5640-8878
E-mail : globalbusiness@TCIchemicals.com

• Chemicals itemized in this brochure are for research and testing use only. Please avoid use other than by chemically knowledgeable professionals. • Information such as listed products and its specifications and so on are subject to change without prior notice. • The contents may not be reproduced or duplicated in whole or in part without permission of Tokyo Chemical Industry Co., Ltd.