

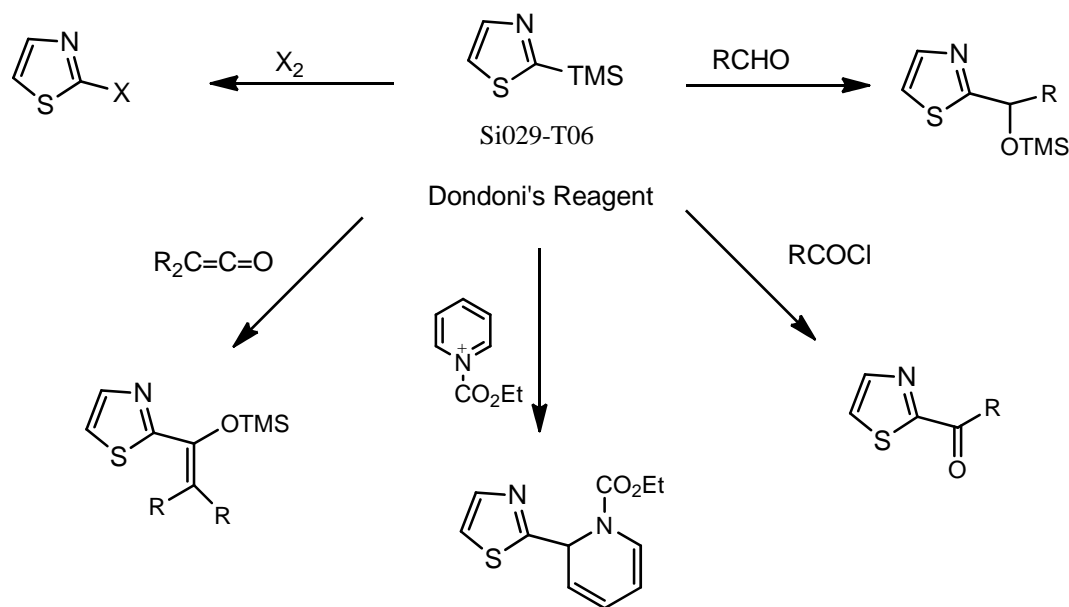
# DONDONI'S REAGENT

From Advanced Molecular Technologies Pty Ltd

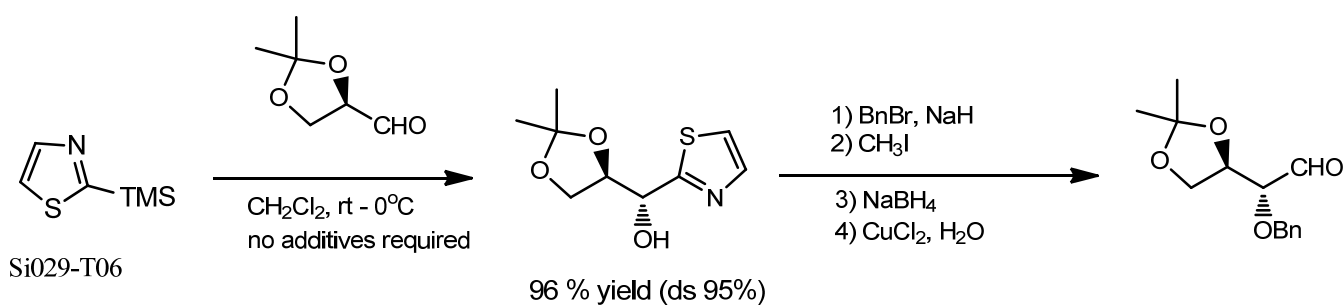
US Distributor AK Scientific ( www.aksci.com)

2-(Trimethylsilyl)thiazole (Dondoni's Reagent) is a versatile, silylated heterocycle with many synthetic applications. It is stable at room temperature, but readily desilylates in acid.

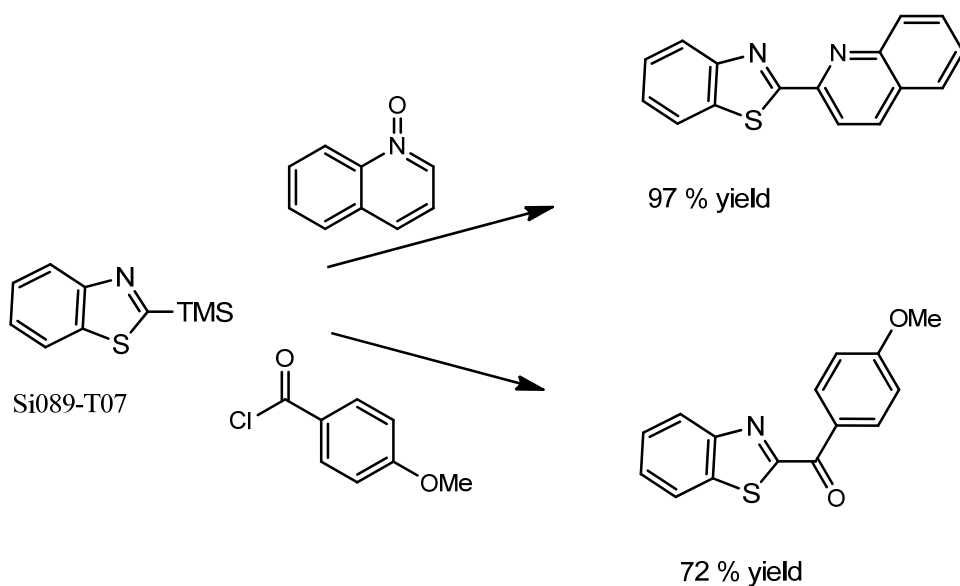
It shows remarkable reactivity with electrophiles, reacting rapidly with a variety of electrophiles under fluoride free conditions yielding 2-substitutedthiazoles.<sup>1-3</sup>



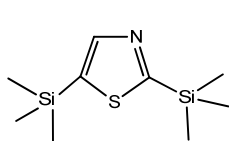
Of special importance is the reactivity of 2-(trimethylsilyl)thiazole with chiral aldehydes which occur with high diastereoselectivity. The resulting 2-substituted thiazole molecules act as latent formyl anion equivalents. A sequence of N-methylation, reduction and hydrolysis reactions yields the free aldehydes in good yield. This has been useful synthetically, for example in iterative linear homologation in building poly-hydroxy molecules.



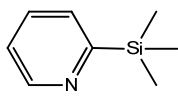
The corresponding 2-(trimethylsilyl)benzo[d]thiazole can also be used in a similar fashion to the 2-(trimethylsilyl)thiazole to give a variety of products in high yields under mild conditions.<sup>4,5</sup>



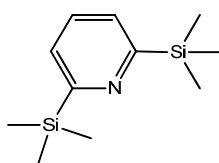
Related Reagents:



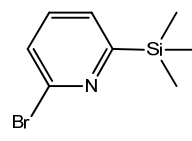
Si091-B07



Si028-T06



Si098-B07



Si099-B07

## References

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- (2) Dondoni, A. *Pure & Appl. Chem.*, **1990**, *62*, No. 4, 643-652.
- (3) Dondoni, A.; Fantin, G.; Fogagnolo, M.; Medici, A.; Pedrini, P.; *J. Org. Chem.*, **1988**, *53*, 1748-1761.
- (4) Araki, Y.; Kobayashi, K.; Yonemoto, M.; Kondo, Y. *Org. and Biomolecular Chem.*, **2011**, *9*, 78 – 80
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Si029-T06-10G	2-(Trimethylsilyl)thiazole	1g	US\$50
Si029-T06-25G	2-(Trimethylsilyl)thiazole	5g	US\$180
Si089-T07-5G	2-(Trimethylsilyl)benzo[d]thiazole	1g	US\$50

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