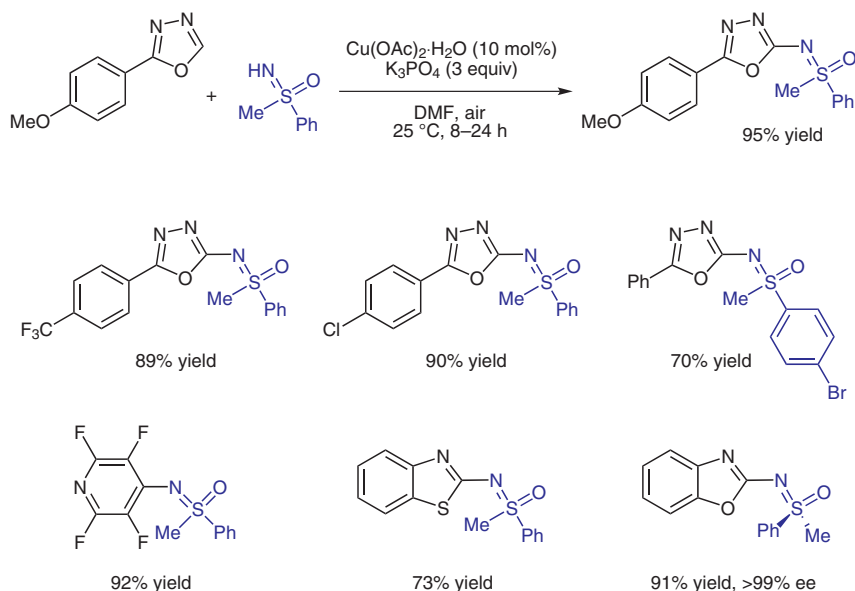


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Copper-Catalyzed Direct Sulfoximation of Azoles and Polyfluoroarenes under Ambient Conditions

Org. Lett. **2011**, *13*, 359-361.

Copper-Catalyzed Direct Sulfoximation



Significance: Herein, the direct dehydrogenative sulfoximation of azoles and polyfluoroarenes is reported. This copper acetate catalyzed C–N coupling proceeds effectively at room temperature in air and affords a wide range of *N*-arylsulfoximines in excellent yield. With this protocol, a preactivation step, such as halogenation or the formation of a metalated species, is not necessary.

Comment: The use of other copper salts gave similar or slightly inferior results. The addition of different ligands leads to decreasing yields. For a full conversion the combination of the phosphate base and DMF was necessary. Using an enantiopure sulfoximine gave the desired product maintaining the enantiomeric excess.

Category

Metal-Mediated
Synthesis

Key words

C–H activation
sulfoximation
copper

SYNFACT
of the month

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Synfacts 2011, 4, 0421-0421 Published online: 18.03.2011
DOI: 10.1055/s-0030-1259608; Reg-No.: P02911SF

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