

Imidazole derivatives

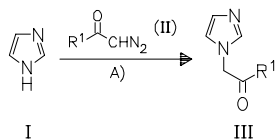
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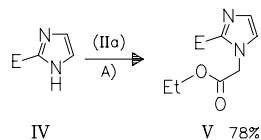
Copper Carbenoid Mediated N-Alkylation of Imidazoles and Its Use in a Novel Synthesis of Bifonazole.

— Imidazole derivatives are N-alkylated by the Cu(acac)₂-mediated reaction with α -diazocarbonyl compounds or with diazoalkanes generated in situ from the corresponding p-toluenesulfonyl hydrazones. The procedure avoids isolation of potentially hazardous diazoalkane intermediates. It can also be applied to the synthesis of the antifungal agent bifonazole (Xb). —

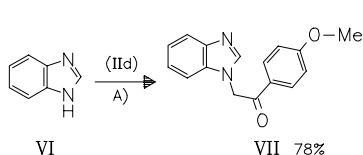
(CUEVAS-YANEZ*, E.; SERRANO, J. M.; HUERTA, G.; MUCHOWSKI, J. M.; CRUZ-ALMANZA, R.; Tetrahedron 60 (2004) 42, 9391-9396; Inst. Quim., Univ. Nac. Auton. Mex., Coyoacan, 04510 Mexico, Mex.; Eng.) — S. Adam

A): Cu(acac)₂ (cat.), toluene, 85°C

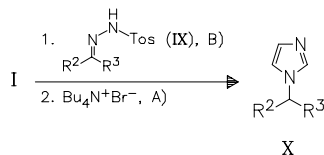
a R ¹ : -O-Et	71%
b R ¹ : -CH ₂ -Ph	45%
c R ¹ : -Ph	40%
d R ¹ :	58%
e R ¹ :	46%
f R ¹ :	42%



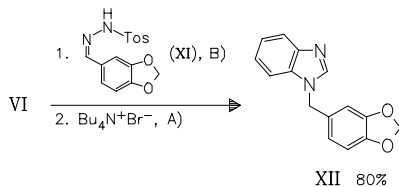
E: -CO-O-Et



B): 60% NaH, THF, 25°C



a R ² -R ³ :	55%
b R ² : -Ph; R ³ :	52%



XII 80%