

Indian Journal of Heterocyclic Chemistry (*Prof. R.S. Varma - Memorial Issue*)

Vol. 24, April-June, 2015, pp. 451-458

(1*H*-BENZO[*d*][1,2,3]TRIAZOL-1-YL)METHANOL: AN EFFICIENT BIDENTATE LIGAND FOR COPPER CATALYZED S-ARYLATION OF THIOLS

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Received 25 May 2015; Accepted 30 May 2015

An operationally simple, palladium-free synthetic protocol for thio-arylation using 0.5 mol % CuI and 1 mol % (1*H*-benzo[*d*][1,2,3]triazol-1-yl)methanol as ligand is described. The ligand was found to be cheap, thermally stable, easy to synthesize, show simplicity in use and wide use in coupling reactions. Appropriately, the donor ability of the N=N bond of the benzotriazole ring and lone pair of electrons on the hydroxy group increases the bidentate ability of the ligand. Using this protocol, we have shown that a variety of aryl sulfides that can be synthesized in excellent yields from readily available aryl halide and thiols.