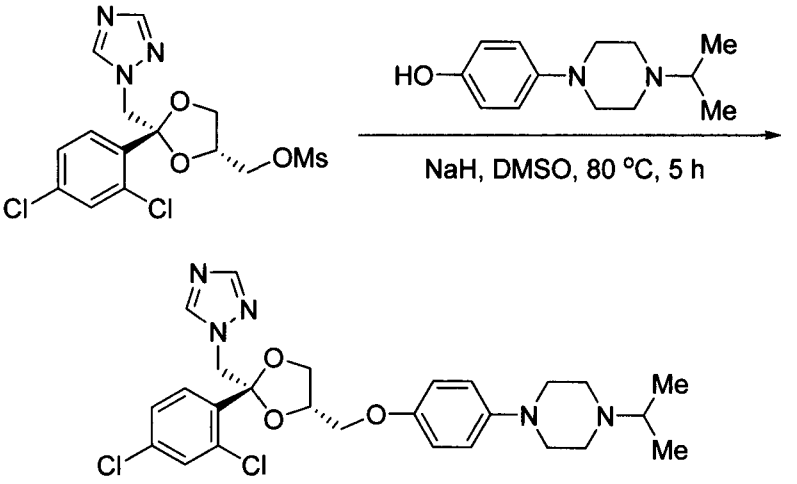
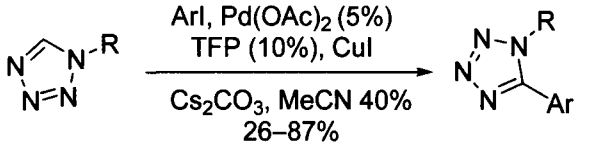


9.2.4 *Substitution of the Tetrazole*

Tetrazole can be lithiated on the 5-position; however, attempts to carry out substitution reactions sometimes fail because the intermediates are easily cleaved and eliminate nitrogen above –50 °C.[8] A series of 1,5-disubstituted tetrazoles were synthesized from a Pd/Cu catalyzed direct arylation of 1-substituted tetrazoles in the presence of tris(2-furyl)phosphine (TFP) and cesium carbonate.[22]



9.2.5 *Reactions of 1,2,3-Triazoles and Tetrazoles*

The Dimroth rearrangement is a rearrangement reaction taking place with certain 1,2,3-triazoles having a 5-amino substituent that is heated. During the rearrangement, the endocyclic and exocyclic nitrogen atoms switch place.[23] The position of the equilibrium in the rearrangement is dependent on the nature of the substituents and on the pH of the solvent.