



University of Zabol
Graduate School
Faculty of Science
Department of Chemistry

The Thesis Submitted for the Degree of Master of Science
(In the Field of Organic Chemistry)

A catalytic synthesis of dihydrofuran-3(2H)-imine skeletons from
isocyanides, terminal alkynes, and oxiranes

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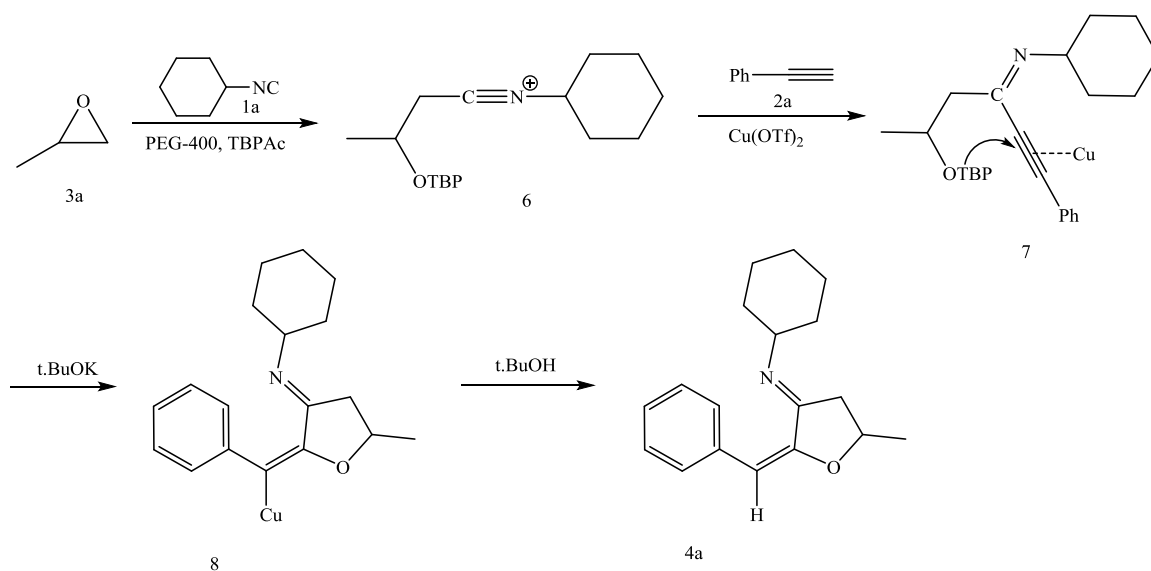
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Abstract

In this catalytic multicomponent reaction, the nucleophilicity of terminal alkynes and isocyanides towards oxiranes has been explored. The reaction outcome depends highly on solvent, bases, and catalysts sources. An array of terminal alkynes, isocyanides, and oxiranes has been examined to explore the of this transformation. The reactions proceeded through SN2 path and in regioselective manner.



Keywords: Dihydrofuran, Oxiran, Terminal alkyne, Isocyanide, PEG-400.