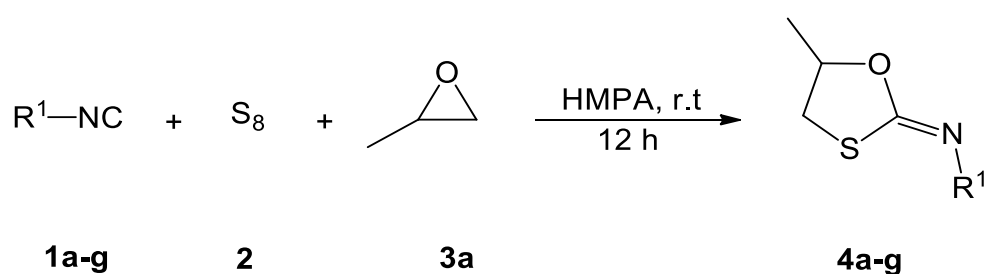


Abstract

Heterocyclic rings have played an important role in medicinal chemistry, serving as key template central to the development of numerous important therapeutic agents. Among the many five membered heterocycles studied 1,3-oxathiolanes are one such class of heterocycles which attracted much attention as they have been reported to possess a wide range of biological activities including anti-viral, anticonvulsant, and antifungal activity. In addition they also showed antihepatitis B virus, anti-HIV and anti-HBV activity. Also they are used as synthetic intermediates and pesticides. In this study was used for the synthesis of derivatives of 1,3-oxathiolane-2-imine of one-pot multicomponent reactions and the solvent HMPA and the overall response was to it as follows:



Synthesis of derivatives of 1,3-oxathiolane-2-imine

Keywords: 1,3-Oxathiolane, Isocyanide, Oxirane, Elemental sulfur



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)

**One-Pot Multicomponent Synthesis of 1,3-Oxathiolane-2-imine
Derivatives**

First Supervisor:

Dr. Alireza Samzadeh Kermani

By:

Samira Zamen Raz

February 2017