**Synthesis characterization and application of a new thiourea based organocatalyst**

Nivedita Sharma, Prof. Raj K. Bansal\*

The IIS University,

Department of Chemistry, Jaipur

nivedita18sharma@gmail.com

**Abstract:** During the last two decades, organocatalysts have attained a prominent place in synthetic organic chemistry. Of these, bifunctional thiourea catalysts are particularly useful due to their comparatively easy synthesis and broader applications.

We succeeded in synthesizing a new thiourea based organocatalyst in two steps. On reacting phenyl isothiocyanate with 4-amino-4H-1,2,4-triazole at room temperature in the presence of THF (solvent), a white powder was obtained (m.p. 262-264 °C). It is highly soluble in ethanol and methanol, but sparingly soluble in acetonitrile and chloroform.

 

It was characterized on the basis of IR and ¹H NMR.

The catalyst was found to catalyse Diels-Alder reaction of *p*-nitrobenzaldehyde with 2,3-dimethylbutadiene.

 

Research scholar.