

The utilization of copper/zeolite as catalyst in the microwave-assisted synthesis of some novel sulfonamide derivatives

Selvakumar DINESHKUMAR, Ganesamoorthi THIRUNARAYANAN*,
Perumal MAYAVEL, and Inbasekaran MUTHUVEL

Department of Chemistry, Annamalai University, Annamaliangar-608002, Tamilnadu, India

Abstract. Zeolite Y clay modified copper nitrate catalyst was prepared. The obtained catalyst was analyzed by SEM, EDS, and powder XRD techniques. The zeolite Y clay modified copper nitrate catalyst was used for the synthesis of various substituted mesalazine by sulfonylation. The synthesized sulfonamides have been characterized by GC-MS, IR, ^1H , ^{13}C and HSQC NMR techniques. The yield percentages of sulfonamides are more than 85%.

Keywords: sulfonamides, copper-zeolites, FT-IR, NMR spectra, GC-mass, SEM, EDS, powder XRD.

* Corresponding author: drgtnarayanan@gmail.com