

Synthesis of Spirooxindole Derivatives Catalyzed by K10-Montmorillonite in Aqueous Medium

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ABSTRACTS

A facile and efficient one-pot three component protocol for the synthesis of Spirooxindole derivatives has been developed. Reaction facilitates under aqueous condition at 60⁰C and catalyzed by K10-montmorillonite as a heterogeneous catalyst using model substrate isatin, malononitrile and dimedone. The adopted approach offers the advantages of easy handling, high atom economy, short reaction time, wide substrate scope, low environmental impact and high yield. The K10- montmorillonite is recovered by simple filtration and reused several times without any loss in its catalytic activity.

Keywords: Isatin, malononitrile, dimedone, montmorillonite, aqueous phase.