

عنوان مقاله:

A novel eco-friendly procedures, for the Synthesis of Spiro-Oxindole derivatives via alcoholic extractive of *Angustifolia* leaves as the catalyst and solvent

محل انتشار:

بیستمین سمینار شیمی معدنی ایران (سال: 1397)

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خلاصه مقاله:

Heterocyclic compounds such as spiro-oxindoles occupy a particular place in chemistry, because of their 'privileged structure' in a wide spectrum of pharmacological and organic chemistry. Spirooxindole framework represents the biological and pharmacological activities such as anti-fungal, anti-microbial, anti-oxidant, anti-malarial and anti-tumor. Because of their unique chemopreventive, the expansion of synthetic methods providing easily obtained to this heterocycle are still desirable [1]. Herein, we investigated *Angustifolia* leaf extract as a new catalyst to a known synthesis of spiro-oxindole derivatives via condensation of isatin derivative, malononitrile, and 1, 3-dicarbonyl compounds under mild reaction conditions (Fig. 1). This efficient route and green methodology for novel synthesis of spiro-oxindoles derivatives has a number of advantages such as short reaction time, high yields (87–95%), use an alcoholic extract of *Angustifolia* leaves [2] as the solvent and catalyst [3], simple workup procedures and avoidance of hazardous or toxic organic solvents and catalysts. The structure of desired compounds have been described by their (physical and spectral data (such as melting points, ^1H NMR and ^{13}C NMR spectra and elemental analyses

کلمات کلیدی:

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