MAGNETIC NANOCOMPOSITES – APPLICATIONS IN BENIGN ORGANIC TRANSFORMATIONS

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Abstract

In this research work, the main objective to synthesize supported heterogenous nanocatalyst by simple co-prepitation procedure without linkers/lingads in aqueous medium and their applications for organic transformations under envrionmentally friendly reaction condition's such as use of Microwave irradiation technique, flow chemistry and benign reaction media. The results indicates that synthesized magentic nanocompostes including Maghemite-Au, Maghemite-CuO, Maghemite-Pd and others have high catalytic activity and recyclability towards the studied applications for oxidative esterification of aldehydes, hydrogenation of aromatic nitro compounds under flow reactor and MW, and Ullmann-type condensation reaction, Heck olefination and Suzuki reaction of aryl halide etc.

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