

An efficient synthesis of polysubstituted chromenes using nano γ -Fe₂O₃@CuFap catalyst

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Abstract: An efficient synthesis of polysubstituted chromenes using nano γ -Fe₂O₃@CuFap catalyst By: Iman Rezaei Chromenes are an important group of heterocyclic compounds that have significant biological and medicinal properties, these natural products can be found in many plants. Chromene derivatives have versatile biological and medicinal properties, such as anti-microbial, anti-virus, anti-tumor and anti convulsants. Several methods have been reported for the synthesis of these compounds, which some of them have their own limitations. In this research, an efficient, cost effective and simple method for the synthesis of polysubstituted benzochromene derivatives is presented. In this protocol one-pot three-component reaction of aryl aldehyde, malononitrile and naphthols in the presence of Cu supported on γ -Fe₂O₃@Fap (γ -Fe₂O₃@CuFap) as efficient nanocatalyst furnished the desired products in short reaction time (8-15 min) and excellent yield.

Keywords : Keyword: green chemistry, three-component reaction, chromene, γ -Fe₂O₃@CuFap

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