



Original Research Article

**$\gamma$ -Fe<sub>2</sub>O<sub>3</sub>@KSF: A recyclable catalyst for the efficient synthesis of pyrano-pyrimidinone derivatives**

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**ABSTRACT**

In this work,  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>@KSF as a stable heterogeneous and magnetic catalyst was prepared by the successive coating of  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub> shell on KSF core. The prepared reagent was characterized using different methods including FT-IR, XRD, TGA and SEM techniques and used for the one-pot synthesis of pyrano-pyrimidinone derivatives. All reactions were performed under mild conditions, during short reaction times in high yields. The catalyst could be easily recovered by an external magnet and reused several times without any considerable loss of its activity.

**Keyword:**  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>@KSF, heterogeneous, magnetic, pyrano-pyrimidinone

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