One-pot solvent free synthesis of someindolylmethane amine derivativesby $Fe(HSO_4)_3$as a recycable catalyst

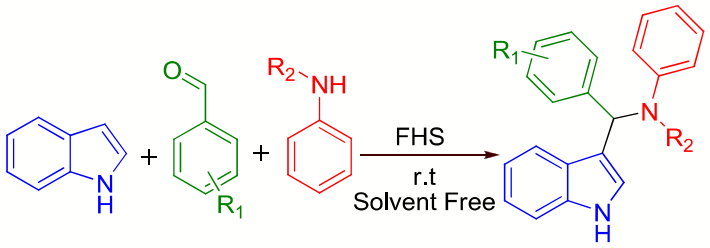
Hossein Eshghi, Majid Mokaber-Esfahani, Mohammad Rahimizadeh*
Department of Chemistry, School of Sciences, Ferdowsi University of Mashhad, P. O. Box 91775-1436, Mashhad, Iran;
Email: heshghi@um.ac.ir

In recent years, significant interest has been devoted to the preparation of substituted indoles due to their varied biological activities including antioxidant, antibacterial, and insecticidal. They also act as colon cancer cell and tumor growth inhibitors and are employed as valuable antibiotics.[1,2]

Despite several methods available in the literature for the synthesis of substituted indoles, there are only a few reports on the access of substituted 3-aminoalkylated indoles using Multi Component Reactions (MCR) protocols.[3,4]

In this work three-component reactions of indoles, benzaldehydes and N-alkylanilines in the presence of an acid catalyst, such as ferric hydrogensulfate (FHS) as a recyclable, easy synthesized and inexpensive catalyst.(Scheme 1)

Decreasing of reaction times, increasing of isolated yields, low percent of bisindolylmethaneformation as byproduct and solvent free conditions are the benefits of this method by means of FHS as catalyst.



Scheme 1

References:

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