

عنوان مقاله:

Nano Al₂O₃/KF using for synthesis of some Hantzsch type-products

محل انتشار:

فصلنامه ارتباطات شیمی ایران، دوره 6، شماره 3 (سال: 1396)

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خلاصه مقاله:

A protocol for the synthesis of 1,4-dihydropyridines (Hantzsch type-products) was developed by means of a three-component condensation of an aldehyde, a β -dicarbonyl compound, ammonium acetate and nano Al₂O₃/KF as catalyst. This reaction was carried out under different conditions including i) solvent-free ii) and reflux in different solvents. In all conditions, the desired products were obtained in high yields after relatively short reaction times. Nevertheless, the reactions proceed faster and in higher yields when they were carried out in ethanol. Compared to the classical Hantzsch reaction conditions and previously reported protocols, this protocol has the advantages of consistently excellent yields and short reaction times. After the reaction, the catalyst could be recovered easily.

کلمات کلیدی:

Hantzsch type-products, 1, 4-dihydropyridines, Nano Al₂O₃/KF, ethanol, different solvents

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