

عنوان مقاله:

Choline chloride: γ ZnCl₂ catalyzed efficient one-pot regioselective synthesis of dihydrobenzofuro[2,3-b]benzofuran

محل انتشار:

فصلنامه ارتباطات شیمی ایران، دوره 8، شماره 3 (سال: 1399)

تعداد صفحات اصل مقاله: 9

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خلاصه مقاله:

The reaction of γ -naphthol and also para-substituted phenols with glyoxal in presence of choline chloride: γ ZnCl₂ [ChCl: γ ZnCl₂], a deep eutectic solvent (DES), as a green catalyst was studied. The amount of catalyst, solvent type, temperature, and time on the yield of reaction were investigated. It was found that the optimal condition included ۱۰% mol ratio of catalyst (mol percentage of DES to glyoxal), solvent-free condition (۶۰ °C) and the time about one hour. Under these conditions, products are obtained in good yield (۸۰%). The products were characterized on the basis of FT-IR, ¹H-NMR, ¹³C-NMR spectra and comparison of melting point with authentic sample. The NMR spectra indicated that of the two probable isomers with an acetal and ether structure; the aforementioned reaction, regioselectively, furnished compounds with acetal linkage, rather than ether.

کلمات کلیدی:

Regioselective synthesis, benzofuro[2,3-b]benzofuran, Deep Eutectic Solvent, choline chloride: γ ZnCl₂

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