عنوان مقاله:

Benzyl methyl morpholinium hydroxide [BMMorph][OH] as an ionic liquid media for efficient synthesis of carboacyclic nucleoside via Michael addition of purine and pyrimidine nucleobases with α,β-unsaturated carbonyl compounds

محل انتشار:

بیستمین کنگره شیمی ایران (سال: 1397)

تعداد صفحات اصل مقاله: 1

نویسنده:

Mohammad Navid Soltani Rad - *Medicinal Chemistry Research Laboratory, Department of Chemistry, Shiraz University of Technology,Shiraz ۷۱۵۵۵-۳۱۳, Iran*

خلاصه مقاله:

The reaction of nucleobases with α,β-unsaturated carbonyl compounds is significant as this reaction provide a straight and appealing route into carboacyclic nucleosidesynthesis [1]. This class of compounds has found particular interest for a variety of biological studies. Moreover, it is demonstrated that some α,β-unsaturated ketonescould be served as alkylating agent useful in cancer chemotherapy, as their reaction with electron-rich site of nucleobases by conjugated addition (Michael addition)inhibits DNA replication in tumor cells. One of the most significant aspects of green chemistry is the elimination of hazardous and toxic solvents in chemical synthesis toavoid the generation of waste. In this regard, ionic liquids have proved to be an alternative green reaction media, catalysts, and reagents owing to their unique properties such as extreme of polarity, inflammability, less volatility, high thermal stability, recyclability, negligible vapor pressure and ability to dissolve a wide range of materials. During the past decade, there has been a dramatic increase in employing the recyclable room-temperature ionic liquids (RTILs) as solvent for organic synthesis [2]. In this connection, we have described the synthesis of benzyl methyl morpholinium hydroxide [BMMorph][OH] and its application in Michael-type addition of purine and pyrimidine nucleobases with α,β-unsaturated esters or ketones in (good to excellent yields (Scheme 1

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا: