

عنوان مقاله:

A new liquid immobilized on nanoporous SiO₂ as an efficient and reusable catalyst for the synthesis of pyrano[3,2-d]pyrimidine derivatives

محل انتشار:

بیست و هفتمین کنفرانس شیمی آلی ایران (سال: 1398)

تعداد صفحات اصل مقاله: 1

نویسندگان:

Zahra Asadi, - Department of Chemistry Faculty of Science, University of Guilan, Rasht, ۴۱۳۳۵-۱۹۱۴۱, Iran

Farhad Shirini - Department of Chemistry Faculty of Science, University of Guilan, Rasht, ۴۱۳۳۵-۱۹۱۴۱, Iran

Hassan Tajik, - Department of Chemistry Faculty of Science, University of Guilan, Rasht, ۴۱۳۳۵-۱۹۱۴۱, Iran

Masoumeh Mazloumi, - Department of Chemistry Faculty of Science, University of Guilan, Rasht, ۴۱۳۳۵-۱۹۱۴۱, Iran

Mohadeseh Seddighi - Department of Chemistry Faculty of Science, University of Guilan, Rasht, ۴۱۳۳۵-۱۹۱۴۱, Iran

خلاصه مقاله:

Pyrano [d-3,2]pyrimidine is one of the most important classes of (thio)barbituric acid derivatives that show considerable pharmaceutical activities, including antitumor, antibacterial, antiallergic, liver protector and blood pressure reduction properties. 1, 2 The most simple and straightforward protocols for the preparation of pyrano[2,3-d]pyrimidinones is based on three-component reactions of substituted aldehydes, malononitrile, and (thio) barbituric acid. Various conditions for these reactions have been reported.³ Although these procedures are better than other methods, they have disadvantages such as long reaction times, harsh reaction conditions, the need for excess amounts of reagents, the use of organic solvents and toxic reagents, and non-recoverability of the catalyst. The development of simple, efficient, and mild procedures using easily separable and reusable solid catalysts to overcome these problems is therefore needed. In this work, a green and efficient procedure is reported for the preparation of pyrano[d-3,2]pyrimidine derivatives using nanoporous SiO₂ containing an ionic liquid. The procedure gave the products in excellent yields in very short reaction times. The reusability of the catalyst is the other important feature of the reported method

کلمات کلیدی:

.Nanoporous SiO₂, Ionic liquid, Pyrano [d-3,2]pyrimidine, (Thio) Barbituric acid

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