

عنوان مقاله:

Synthesis of spirooxindoles using silica-bonded N-(propyl-triethylene-triamine) as a recyclable catalyst

محل انتشار:

دومین همایش ملی نفت، گاز و پتروشیمی (سال: 1391)

تعداد صفحات اصل مقاله: 4

نویسندگان:

Farshad Kainfar - Department of Chemistry, Gachsaran Branch, Islamic Azad University, Gachsaran, Iran

Khodabakhsh Niknam

خلاصه مقاله:

A simple and efficient one-pot three-component synthesis of the biologically important spirooxindoles scaffold was carried out by the reaction of isatin, malononitrie, and 5,5-bis-substituted-1,3-cyclohexanedione in the presence of silica-bonded N-(propyl-triethylene-triamine) (SBNPTT) in aqueous medium. The catalyst could be recycled several times without loss in activity

کلمات کلیدی:

Three-component, Spirooxindoles, Water, Isatin

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/202273>

