

عنوان مقاله:

Effect of vibration frequency of reactor on oxidative coupling reaction of 2-naphthol in the solid state

محل انتشار:

ششمین کنگره بین المللی مهندسی شیمی (سال: 1388)

تعداد صفحات اصل مقاله: 8

نویسندگان:

K Shayesteh - Sahand University of Technology, Chemical Engineering Department, Tabriz, Iran. Chemical Engineering Group, The University of Mohaghegh Ardabili, Ardabil, Iran

J Moghaddas - Sahand University of Technology, Chemical Engineering Department, Tabriz, Iran

M Haghighi - Sahand University of Technology, Chemical Engineering Department, Tabriz, Iran

G Imanzadeh - Chemistry Group, The University of Mohaghegh Ardabili, Ardabil, Iran

خلاصه مقاله:

In this paper, we first reviewed the recent methods reported for oxidative coupling of 2-naphthol using various catalysts and solvents. It was found that there is a need for a simple, safer and low cost method for this reaction. In this work, the solid state reaction of oxidative coupling of 2-naphthol by $\text{FeCl}_3 \cdot 6\text{H}_2\text{O}$ was studied under vibration mill that can be interesting from the view point of green chemistry. Experimental tests were done with varying frequencies up to 70 Hz. Increase in frequency accelerated the reaction rate. The results also indicate better efficiency of the method for vibration frequency at 20 Hz and greater. The efficiency of the proposed method is obviously higher than methods reported in literature.

کلمات کلیدی:

Solid State Reaction, Vibration Mill, Oxidative Coupling 2-naphthol, Binaphthol Production

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/77605>

