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Preparation of MgO Nanoparticles by Green Methods

Authors : Maryam Sabbaghan, Pegah Sofalgar

Abstract : Over the past few decades, a significant amount of research activities in the chemical community has been directed towards green synthesis. This area of chemistry has received extensive attention because of environmentally benign processes as well as economically viable. In this article, the MgO nanoparticles were prepared by different methods in the present of ionic liquids. A wide range of Magnesium oxide particle sizes within the nanometer scale is obtained by these methods. The structure of these MgO particles was studied by using X-ray diffraction (XRD), Infrared spectroscopy (IR), and scanning electron microscopy (SEM). It was found that the formation of nanoparticle could involve the role of performed 'nucleus' and used template to control the growth rate of nucleuses. The crystallite size of the MgO products was in a range from 31 to 77 nm.

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