

Sono-synthesis of a new Pb complexe based on 4,4'-bithiazole

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It is well-established that ultrasound irradiation is a key technology in fast synthetic approach for many materials. Ultrasonic irradiation on reaction combination constructs a huge number of cavitation bubbles which grow up quickly and eventually undergo drastic collapses which result in the formation of micro-jets that can generate fine emulsion between the reactants. Besides, the local temperature within the reaction mixture rises with these vigorous collapses of cavitation bubbles and ultimately results to cross the activation energy barrier. Hence, in many cases, the usage of ultrasonic irradiation can support the catalysts in organic reactions through alteration in morphology, size, and energy supply. This article focuses on the simple synthetic preparation of a new Pb complex by sonochemistry method. The thermal stability of new complex was studied by thermal gravimetric (TG) and differential thermal analyses (DTA). The Pb compound was characterized by X-ray powder diffraction (XRD) and Fourier transform infrared (FT-IR) spectroscopy.

Keywords: Sono-synthesis, Pb, complexe, 4,4'-bithiazole

References

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