

Study on the Controlled Growth of Lanthanum Hydroxide and Manganese Oxide Nano Composite under the Presence of Cationic Surfactant

Authors : Neeraj Kumar Verma

Abstract : Lanthanum hydroxide and manganese oxide nanocomposite are synthesized by chemical routes. Physical characterization is done by TEM to look at the size and dispersion of the nanoparticles in the composite. Chemical characterization is done by X-ray diffraction technique and FTIR to ascertain the attachment of the functionalities and bond stretching. Further thermal analysis is done by thermogravimetric analysis to find the tendency of the thermal decomposition in the elevated temperature range of 0-1000°C. Proper analysis and correlation of the various results obtained suggested the controlled growth of crystalline without agglomeration and good stability in the various temperature ranges of the composite.

Keywords : nanoparticles, XRD, TEM, lanthanum hydroxide, manganese oxide

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020