

Abstract

Nanomaterial of undoped and cerium doped Fe_2O_3 was prepared engaging chemical self-combustion method. Crystal structure, morphology of surface and presence of desired functional groups for prepared nanomaterial specimens were investigated using X-rays diffractometer, SEM and FTIR respectively. Fe_2O_3 have rhombohedral crystal structure, confirmed by XRD with improved Crystallinity upon Ce-doping. SEM images revealed the arbitrary/irregular geometry for synthesized nanostructures. FTIR spectra confirmed the appearance of relevant and desired functional groups.