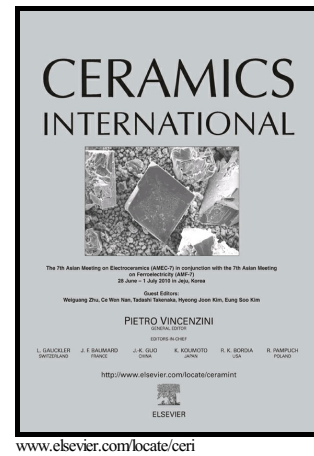


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OXIDE COMPOSITE: CHARACTERIZATION,
PHOTOLUMINESCENCE STUDY,
ANTIBACTERIAL ACTIVITY

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ANTIBACTERIAL ACTIVITY**

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Abstract

Ce doped ZnO/rGO composite materials were prepared by a one-pot hydrothermal process without any surfactant. The size, crystallography and morphology of the composite were investigated in detail by X-ray diffraction (XRD) studies, Raman spectroscopy, scanning electron microscopic (SEM), transmission electron microscopic (TEM) studies, UV-Vis spectroscopic analysis and X-ray photoelectron spectroscopic (XPS) analysis. The XRD pattern substantiates the formation of Ce doped ZnO/rGO composite revealing the wurtzite structure of ZnO. The SEM micrograph illustrates flower-like morphology for ZnO/rGO composite which coalesced further after cerium incorporation. Additionally, TEM image illustrated that ZnO hexagons were disoriented from its flower structure in Ce/ZnO/rGO

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