IMPACT: International Journal of Research in Engineering & Technology (IMPACT: IJRET)
ISSN(E): 2347-4599; ISSN(P): 2321-8843
Vol. 3, Issue 11, Nov 2015, 23-28

HEXAMINE COMBUSTION SYNTHESIS OF LANTHANUM NICKELATE

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ABSTRACT

This work presents the synthesis of $LaNiO_3$perovskite by simple combustion synthesis using hexamine as the fuel. The samples were characterized by X-ray Diffraction (XRD) and FT-IR. Inorder to identify the thermal decomposition and dissociation reactions, differential thermal analysis (DTA) and thermogravimetric analysis (TGA) were performed. The elemental analysis of the powder was assessed using Energy Dispersive X-ray analysis (EDS) technique. The morphological features of the powders were examined by Scanning Electron Microscopy (FESEM).

KEYWORDS: Combustion synthesis, Perovskite, X-ray Diffraction, Hexamine