**NGHIÊN CỨU CHẾ TẠO VẬT LIỆU PHÁT QUANG**

**TRÊN NỀN LaPO4 PHA TẠP Eu(III)**

**STUDY OF THE SYNTHESIS LUMINESCENT MATERIALS DOPED Eu(III) IN LaPO4**

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**ABSTRACT**

The synthesis of luminescent materials doped with rare earth element in LaPO4 has been studied. LaPO­4-Eu3+ luminescent materials were synthesized by direct copreciptation from a high boiling solvent. Morphology of prepared samples was characterized by scanning electron microscopy (SEM). Schematic X-ray diffractions show that all of the diffraction peaks could be well indexed to the monoclinic phase of the monazite structure of LaPO4 host. The results indicate that single monoclinic phase LaPO­4-Eu3+ luminescent materials microspheres are readily obtained at 800oC within 2h. The effects of temperatures and Eu3+ doping content on the luminescent materials were elaborated in detail.

**Key words:** LaPO4; rare earth elements, Eu3+ doping.