

# NGHIÊN CỨU TỔNG HỢP $ZnFe_2O_4$ KÍCH THƯỚC NANOMET BẰNG PHƯƠNG PHÁP ĐỐT CHÁY GEL

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## TÓM TẮT:

$ZnFe_2O_4$  powder has been synthesised at low temperature (500°C) by the combustion of gel prepared from polyvinyl alcohol (PVA), iron nitrates, and zinc nitrates.

Factors affecting on process synthesis of nanometer oxides  $ZnFe_2O_4$  including temperature of gel formation, molar ratio of concentration of ion metal and the concentration of polyvinyl alcohol, temperature of calcining on structure and sizes were investigated.

The crystalline process and the morphology of oxides particles were considered by X-Ray diffraction (XRD), Scanning Electron Microscopy (SEM). Further thermal treatment at 400-700°C in 3h yields the single phase  $ZnFe_2O_4$ .  $ZnFe_2O_4$  powders with crystallite size 20 nm have been prepared