

# TỔNG HỢP $\text{Co}_3\text{O}_4$ KÍCH THƯỚC NANOMET BẰNG PHƯƠNG PHÁP ĐỐT CHÁY GEL

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## TÓM TẮT:

$\text{Co}_3\text{O}_4$  powder has been synthesised at low temperature (6000C) by the combustion of gel prepared from polyvinyl alcohol (PVA) and cobalt nitrates.

Factors affecting on synthesis process of nanometer oxides  $\text{Co}_3\text{O}_4$  including temperature and pH of gel formation, molar ratio of cobalt concentration and polyvinyl alcohol concentration, temperature of calcining on structure and particles sizes were investigated.

The crystalline process and the morphology of oxides particles were considered by X-Ray diffraction (XRD), Scanning Electron Microscopy (SEM). Surface areas of oxides were determined by the BET (Brunaure-Emmet-Teller) method. Further thermal treatment at 400-7000C in 2h yields the single phase  $\text{Co}_3\text{O}_4$  with a specific surface area 39,68  $\text{m}^2/\text{g}$