"NGHIÊN CỨU TỔNG HỢP COFE2O4 KÍCH THƯỚC NANOMET BẰNG PHƯƠNG PHÁP ĐỐT CHÁY GEL

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TÓM TẮT:

CoFe2O4 powder has been synthesized at low temperature (5000C) by the combustion of gel prepared from polyvinyl alcohol (PVA) and solution Co(NO3)2 and Fe(NO3)3. Factors affecting on structure and particle size of nanometer CoFe2O4 including temperature of gel formation, molar ratio of ion metal and polyvinyl alcohol concentration , temperature of calcining were investigated.

The crystalline process and the morphology of oxide particles were considered by X-Ray diffraction (XRD), Scanning Electron Microscopy (SEM) and Vibrating Sample Magnetometer (VSM). Surface areas of oxides were determined by the BET (Brunaure-Emmet-Teller) method. This specific surface area is 42,78 m2/g for CoFe2O4.The results indicated that CoFe2O4 powders with crystallite size 20-25 nm, Hc = 820 Oe, Ms = 63,5 emu/g, Mr = 22 emu/g have been prepared.