GROWTH OF CARBON NANOTUBES USING THERMAL CATALYTIC CHEMICAL VAPOR DEPOSITION OF C_2H_2 OVER FE-CO CATALYSTS

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Abstract

This paper describes the influence of a Fe-Co catalyst on growth of carbon nanotubes (CNTs) by catalytic chemical vapour deposition of acetylene and nitrogen gases. Ferrum-Cobalt supported with alumina or zeolite was used as a catalyst. Comparison of the various types of the Fe-catalyst (Co, Al, and Zeolite) leads to the conclusion that Co-catalyst is suitable for producing multi wall carbon nanotubes (MWCNTs) and combination of Fe and Co provide a good condition to the catalytic growth of CNTs. Prepared samples were analysed by Raman spectroscopy (RS) and scanning electron microscopy (SEM).