

Influence of the synthesis method on structural properties and catalytic activity for oxidation of CO and C₃H₆ of pirochromite MgCr₂O₄

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Description

Description The work examines comparatively MgCr₂O₄ oxide samples prepared by three methods (solid state reaction, sol–gel and co-precipitation within reverse microemulsion) with respect to their structural/morphological characteristics and catalytic properties for complete combustion of carbon monoxide and propene. For this purpose, the samples are examined by XRD, SBET, SEM, XPS and TPR techniques. The results reveal achievement of optimum catalytic properties for the sample prepared by microemulsion, a method which apparently allows achievement of high surface area nanocrystals in this type of material.