

عنوان مقاله:

THE ROLE OF METAL ION ON PHYSIOCHEMICAL PROPERTIES OF METAL ALUMINATES PREPARED BY IMPREGNATION METHOD

محل انتشار:

مجله علم مواد و مهندسی ایران، دوره 14، شماره 1 (سال: 1395)

تعداد صفحات اصل مقاله: 9

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خلاصه مقاله:

A series of MAI_2O_4 (M=Ni, Zn, and Cu) aluminates were prepared by using impregnation method; the metal content of the products was ranged between 5wt% to 25wt%. The samples were characterized by x-ray diffraction (XRD), Brunauer Emmett Teller (BET) surface area, NH_3 temperature-programmed desorption (NH_3 -TPD), and inductively coupled argon plasma (ICP). The specific surface areas of zinc, nickel and copper aluminates were in the ranges of 47-77m²/g, 63-87m²/g and 1.6-3m²/g, respectively. The surface acidity decreased in the order of $CuAl_2O_4 << NiAl_2O_4 < ZnAl_2O_4 << Al_2O_3$. By increasing the amount of metals in the samples, the number of acidic sites decreased, but their strength did not significantly change. Ni-aluminates have fewer acidic sites than Zn-aluminates, particularly in strong acid sites

کلمات کلیدی:

Aluminate, Impregnation, Acidity, Catalyst Support

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