

عنوان مقاله:

Controlling yield of zeolite NaY synthesis by hydrothermal method

محل انتشار:

پنجمین کنگره بین المللی مهندسی شیمی (سال: 1386)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

Zeolite NaY was hydrothermally synthesized using a two-stage formation seeding crystals and gel mixture without the presence of organic templates, structure-directing agent, and other additives. We developed an alternative condition for the production of zeolite NaY. By modified the PH in gel formation, we were able to investigate the effect of PH in yield zeolite NaY crystal, with reduced of PH in gel formation elevated mixing and decreased crystallization time and amorphous phase in product. The as-synthesized samples were characterized by X-ray diffraction (XRD), scanning electron microscopy (SEM), X-ray Fluorescence (XRF), Brunauer-Emmett-Teller (BET), and Fourier-Transformation Infrared (FT-IR) spectroscopy and Raman spectroscopy. As a result, we verify that zeolite NaY obtained from hydrothermal condition, present a good degree of crystallinity and then can be suitable for using in adsorption and catalysis experiments.

کلمات کلیدی:

Zeolite NaY; Molecular sieve; Catalysts; synthesis & Characterization; hydrothermal method

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