

Preparation of Amorphous silica from Algerian Diatomite and Its Properties

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Abstract : In this work there is a facile method to produce pure amorphous silica from Algerian diatomite with an economic and ecological method. The sodium silicate is commonly used as precursor in silica gel diatomite preparation. In this study, the preparation of sodium silicate is preceded by acid washing of raw diatomite; the acid is then slowly added to precipitate silica at different pH values to obtain silica gel. The silica gel is characterized by EDX, ICP-MS and XRD. The EDX reveals that the purity of silica from diatom is 98% after purification compared to raw diatom.

Keywords : diatomite, acid cleaning, dissolution, amorphous silica, purity

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