Characterization of Some Iranian Natural Zeolites

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Abstract: Zeolites are hydrated crystalline aluminosilicates of alkali and alkaline earth cations. Their three dimensional framework consist of [SiO₄] and [AlO₄] tetrahedra. Beside their low price and abundance, three main properties of zeolites i.e. adsorption, ion exchange and catalytical properties promote their versatile industrial applications. In Iran, lack of a systematic and comprehensive research on the characterization of natural zeolites causes these valuable minerals to be relatively unknown. The aim of this research is to characterize some of the Iranian natural zeolites by means of thermal analysis methods including thermogravimetry (TG), and derivative thermogravimetry (DTG). In some cases, X-ray diffractometry and chemical complementary analysis were used methods. as