IRANIAN SOCIETY of CRYSTALLOGRAPHY and MINERALOGY

Vol. 22, No. 2, Summer 1393/2014

IRANIAN JOURNAL of CRYSTALLOGRAPHY and MINERALOGY

Investigation of chemical and mineralogical composition of Mishan Formation Marls in the north of Ahvaz to use of Brick raw material

H. Pourkaseb[*1], S. Veiseh[2], SH. Niknam[1], A. Zarasvandi[1]

1-Department of Geology, Faculty of Sciences, Shahid Chamran University, Ahvaz, Iran
2- Road, Housing and Urban Development research Center, Tehran, Iran

(Received: 18/11/2012, in revised form: 16/4/2013)

Abstract: This study focuses on the mineralogical and chemical characterization of Mishan Formation marls from North East Ahvaz for brick production. Mineralogical and Geochemical studies were performed by XRD and XRF methods. Major minerals in marls are quartz, calcite, dolomite and the minor minerals are orthoclase, chlorite, and muscovite. Illite and montmorillonite are also present as minor minerals in some samples. SiO_2, CaO, Al_2O_3, Fe_2O_3 and MgO are the most abundant major oxides. These oxides are effective on the technical behavior of brick raw materials. Raw materials (marls) composition was compared with Iranian National standard permissible limits. The average chemical composition of marls is close to the required amount. From mineralogical and chemical composition point of view, by adding clay admixture to the raw materials, marls of this region can be used for brick and related industries.

Keywords: *Marl; Mishan; brick; standard; mineralogy; chemical composition.*

متن فارسی اصل مقاله از صفحه ۲۹۷ تا ۳۰۸ در این شماره به چاپ رسیده است.

* Corresponding auther, Tel: 09166095216, Email: shanbeh1974@yahoo.com