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Recognition of evaporite minerals in Siahkuh desert areas of the Yazd Province, Iran

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Abstract: the Siahkuh playa is one of the greatest deserts in Yazd province and is located in the north-north eastern of Ardakan city. In playa regions, different sub-environments with different mineral potentials can be recognized. In Siahkuh playa, various evaporite minerals such as gypsum in different form (sugery, nodular and euhedral crystals), halite (fibrous, cylindrical, hopper-shaped crystals and ball-shaped), and sodium sulfate were indentified. Sodium sulfate (Thenardite) is a commercial chemical compound which is formed in playas environments. This compound was also found for the first time in mud flat sub-environment of SW of Siahkuh playa. In brine waters of salt lakes sub-environment of Siahkuh playa, various elements such as lithium, magnesium, calcium, potassium and sodium were detected.

Keywords: *Siahkuh playa, evaporite minerals, gypsum, halite, Thenardite, brine waters.*

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