

Sedimentological characteristics of south Golbaf, Kerman, Playa and its role on the appearance and evolution of pseudokarstic badlands in this playa

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Abstract

The purpose of this study is to determine the characteristics of sediments laid down in South Golbaf Playa and their influence on the formation of pseudokarstic badlands in this area, as well as to investigate development of these badlands. For this purpose, textural, mineralogical and chemical (pH, EC, ESP and SAR) characteristics of the sediments were determined. These data revealed that the deposits are mainly comprised of erodible loams (mudrocks). According to field evidence, filling of the tectonic depression with sediments led to overflowing of surficial runoff as well as creation of gullies on the surface of playa. These events caused drainage and contraction of sediments and the appearance of fissures. The entry of runoff into these fissures and the consequent erosion led to creation of pseudokarstic badland.

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