

Silica (agate-jasper) mineralization in the Chah Andoo plain, SW Damqan by Micro-Raman spectroscopy

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Abstract: The Chah Andoo plain is located about 100 km SW Damqan in Semnan Province. Basalt, andesite-basalt, tuff and metamorphic rocks are the main rocks which exposed in the study area. Agate, jasper and agate-jasper are silica minerals widespread at the plain surface as crushed fragments from a few millimeters to 0.5 meter in dimension. Banded (mono centric), stalactite (landscape), mossy and thunder egg agates are the most frequent agate types in the area. Jaspers can be observed as banded, mossy, massive and different color types. Low quartz and moganite as the main silica polymorph minerals with impurities such as hematite, carbonate, chlorite and carbonaceous organic material were determined by micro Raman spectroscopy. Moganite is identified in the silica mineralization for the first time in the study area.

Keywords: *agate; jasper; micro Raman Spectroscopy; moganite; Chah Andoo.*

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