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Identification and exploration of geochemical anomalies associated with Cu minerals in Natanz rectangle at 1:100000 scale (north Isfahan), Iran

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Abstract: Natanz, 1:100000 geological map, is located in northeast Isfahan, in the Urumieh-Dokhtar structural zone. This sheet is a prospective area for Cu, Zn and Pb mineralization. Spatial distribution of geochemical anomalies for mineralization was identified; using pathfinder elements statistic method. The sample from catchment basin technique was applied on stream data. Then threshold elements were recognized and separated anomalies. The results show a good distribution of Pb, Zn, As and Sb elements close to copper index in the Natanz map. Moreover, fractal model used to introduce new anomalies in south portion of map for future exploration prospecting.

Keyword: *Urumieh-Dokhtar; Natanz; stream sediment; Cu minerals; Fractal.*

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