

## عنوان مقاله:

The Influence of pH of Water and Chemical Composition on the Durability of Different Rocks from the Qom Formation, East and Northeast of Hamedan, Iran

## محل انتشار:

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## خلاصه مقاله:

Durability is a significant parameter in engineering geology and it shows the extent of the degradability of rocks as the result of mechanical and chemical breakdowns. This phenomenon is closely linked to the composition, porosity and texture of rocks. To understand the relationship between the chemical composition of rocks and their durability the mineralogical properties of the rocks along with durability tests under both acidic and alkaline pH environments were determined. Five samples of limestone and three samples of marl were analyzed. The results revealed that rocks containing high levels of  $\text{CaCo}_3$  were affected in the acidic conditions while rocks containing high levels of  $\text{SiO}_2$  were not affected by variance in the pH of the environment. These second groups of rocks were more dependent on the texture of their constituent minerals.

## کلمات کلیدی:

Slake durability index, pH, Mineralogical properties, Chemical composition, Texture, Qom formation

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