

Geochemistry of Silt Size Fraction of the Beach Sands Along the Coast Between Al Kuwifia and Tolmeita, NE Libya

Authors : Basem A. El Werfallia, Osama R. Shaltamiab, Ragab M. Al Alwanyc

Abstract : The present work aims to characterize the geochemistry of the beach sands along the Mediterranean Coast from Al Kuwifia to Tolmeita, NE Libya. The major oxides CaO and MgO are the main constituents of the carbonate minerals; calcite and aragonite. SiO₂ is mainly in the form of quartz. Sometimes a high quotient of SiO₂ together with the oxides; Al₂O₃, K₂O and partly of Na₂O, TiO₂ and Fe₂O₃ are essentially allocated within the structure of the feldspars. Part of Na₂O and the content of Cl belong mainly to halite. Part of Fe₂O₃ and TiO₂ may be accommodated as iron oxyhydroxides. Part of CaO and the content of SO₃ are allotted within the gypsum structure. Ba, Sr, Th, U and REE are basically controlled by the carbonate fraction, while Cu, Zn, V and Cr are strongly correlated with Al₂O₃.

Keywords : geochemistry, major oxides, Al Kuwifia, Tolmeita

Conference Title : ICAMG 2024 : International Conference on Applied Mineralogy and Geochemistry

Conference Location : Jeddah, Saudi Arabia

Conference Dates : February 19-20, 2024