

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

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**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. SiO<sub>2</sub> is mainly in the form of quartz. Sometimes a high quotient of SiO<sub>2</sub> together with the oxides; Al<sub>2</sub>O<sub>3</sub>, K<sub>2</sub>O and partly of Na<sub>2</sub>O, TiO<sub>2</sub> and Fe<sub>2</sub>O<sub>3</sub> are essentially allocated within the structure of the feldspars. Part of Na<sub>2</sub>O and the content of Cl belong mainly to halite. Part of Fe<sub>2</sub>O<sub>3</sub> and TiO<sub>2</sub> may be accommodated as iron oxyhydroxides. Part of CaO and the content of SO<sub>3</sub> 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 Al<sub>2</sub>O<sub>3</sub>.

**Keywords :** geochemistry, major oxides, Al Kuwifia, Tolmeita

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