

Grain and chemical composition of coastal sand in Kanto and adjacent region

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Grain composition and chemical composition of beach sand, over 200 samples collected from Southern Abukuma region, Choshi region, Kujukuri region, Shonan region and West Suruga-Bay region, had analysed.

The composition of sand had wide variety in Kanto and adjacent region, and also show areal differences in each coast, caused by sand supply from river system and coastal current differentiation.

Rock fragment dominates in both Shonan and West Suruga-Bay coast, but Shona sand consist of mainly volcanoclastic fragment, while West Suruga-Bay sand consist of sedimentary rocks origin fragment, which made in accretionary process in subduction zone. Trace element composition shows also differences between two coast in sand grain origin.

We will discuss about the importance of grain and chemical composition analysis of recent coastal sands, not only in the field of coastal engineering, but also in earth science, in the context of tectonic setting analysis of geological time scale.

Keywords: beach sand, grain composition, chemical composition, trace element, tectonic setting, erosion