

Sand grain and the Earth - an educational attempt to show the crustal character by sand grain composition

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Sand grain is not popular in secondary education, although volcanoes, earthquakes, are important study subject in Japan. The difficulty to teach sand grain due to microscopic technique to identify each grain is not trained at most schools and universities in Japan.

Beautiful magnified sand grain observed by rupe and microscope, is often make students excited, and will be motive force to study earth science. The differences in grain composition, and grain morphology reflect the geological condition and climate, such as stable continent, volcanic arc, oceanic island, and tropic, arctic, humid, arid, etc.

A set of sand specimen, which include Japanese sand and continental sand, is effective to show the difference of geological character, and will realize that Japan stand on plate margins and have many volcanoes and uplifting so quickly that grains not enough weathered, compared to continental desert sand.

The sand specimens and grain data might to be integrated in museums and universities, it seems better to make open database and used to educational purpose in schools.

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