

Hydrodynamic analyzer for sediments

Nobuaki Niitsuma[1]

[1] Inst. Geosci., Shizuoka Univ.

Reynolds Number of the grain size of sand and its settling velocity is ranged in the most interesting transitional zone from stratified flow to turbulent flow. The hydrodynamic analysis of sand is capable to give information on the hydrodynamic sedimentary conditions. New analyzer for sediments is designed for hydrodynamic analyses using settling tubes with, 8 mm and 12 mm inner diameters, 75 cm length, 4 optical sensors, automatic sample inlet system, and computer processing system.

Coastal sand and offshore sand is clearly defined with the normal distributions for settling velocity and logarithm of grain diameter. The sand samples from deep to shallow marine sedimentary sequence have characteristic reactions, which indicate the possibilities of hydrodynamic analysis.