

GIS applications for the estimation of sedimentary environment of the southwestern Okhotsk sea.

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Recently GIS (Geographical Information System) have been broadly applied for environmental and engineering geology. I used it for paleoceanography around south-west Okhotsk sea in order to reveal the sedimentation system. Previous researches suggest that Okhotsk sea would be sensitive to global environmental fluctuation. This means that this area could be representative index of the climate change.

Grain portability was simulated by GIS for representative grain sizes. The computed flow line led to transport route of each grain component. Taking into the consideration with particle size and terrain distribution, each

site data were classified into several sedimentation types, and each transport mechanism was revealed. This results show that finer grains than silt were transported by oceanic current as suspended load. However the

transport mechanism of the particles over sand size were not clear, may be typical strong current system in Okhotsk sea.