

## **THE NATURE OF TECTONIC DEFORMATIONS OF SEDIMENTS ON THE OKHOTSK SEA SHELF**

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Numerous deformations of sediments have been observed on the Okhotsk Sea Shelf and within bathymetric depressions. The performed research has shown that the deformations are result of vertical basement block motions variable in scale and size. The most block motions took place in the Miocene. Less active discontinuous block motion activity persists to the Recent. It is very probable that some block motions are inheritent from much earlier time. The basement block motions have produced block folds and anticlines in the sediment cover. It is believed that block motions have been caused by magmatic intrusions in upper consolidated Earth crust according to mechanism described earlier [Sychev et. al Tectonophysics, 122, 1986, 283-305]. It is probable that the nature of the deformation of the sediments in other seas is similar to the characterized above.