PHOSPHORITES OF THE JAPAN SEA

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Up to now, the Sea of Japan is unique a one out of marginal seas of the Pacific Ocean, in which phosphorites are found and studes in detail.As a result of long standing investigation have become known in various parts of the sea, where they were dredged in some morphostructures at numerous stations at depth intervals from 350 to 2500m.Among the phosphorites of the Sea of Japan are distinguished a siliceous-carbonate septarian nodules and concretionary phosphorites with low contents of phosphorus - 10-12% and platy phosphorites are the utmost distributed and practically important group of phosphorites. Ð2Î5 content in these phosphorites is 28-31% and 12% of them are in a limonite-dissolved form, that is 43% from the total useful component. This allows us to use them as the phosphate meal. In such case the crop increase in some cultures (oat, barley, wheat, soy-bean) makes 40-70 %.Main factor effecting formation of phosphorites is the geostructural setting, in particular, the availability of consolidated blocks of the Earth's crust of ancient sialic bedding, which contributed to manifestation of subalkalic volcanism of the sea-marginal tholeiites. Their post-volcanic activity was the main supplier of phosphorus into the sea water and enclosing rocks. The second factor is the accumulation of diatom silts, close in time to a post-volcanic activity of subalkalic volcanoes. Metasomatic substitution of diatom sediments for phosphorus results in high quality phosphorites stratum and lense formation, which stratigraphically are confined to the lower horizons of the mid-and upper Miocene and Pliocene rock masses. All varieties of phosphorites have been formed in sediments of shallow sea type of islands and continental shelfs.