

Late Quaternary Total Organic Carbon fluctuation in the eastern Japan Sea and offshore of the Russian maritime provinces

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In the Sea of Japan, three cores were taken from the Oki Trough (PC1606), Mogami Trough South (PC1726), and the offshore of the Russian Primorye (Lv81-35GC). Total organic carbon (TOC), total nitrogen (TN), and total sulfur (TS) in sediments were measured from these cores, and the organic carbon concentration and the origin of organic matter were clarified. The organic carbon concentration in the sediment reflects the past primary production. All cores have high correlation between TN and TOC. The value of C/N is from 6 to 10. On the other hand, there is no correlation between TS and TOC. The value of C/S varies from 0.2 to 11. The TOC concentration of PC1726 and Lv81-35GC is almost coincide with PC1606. However, the peak around 10 ka detected in PC1606 is unclear in the other cores. In the period of the Last Glacial Maximum, primary production declined at all areas. However, the subsequent reactions were different in each area.

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