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sediment and the lowest in the mouth of the bay. Structural incorporation of trace aluminum in BSi surface and the reactivity of BSi affected both solubility and dissolution dynamic of BSi in Jiaozhou Bay sediment. BSi dissolution in the water columns and sediment appear to be the key process that sustains diatoms as the dominant species in Jiaozhou Bay.

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T3 - TS1 (Abstract 384)

Forecast of dynamical processes and oil spill transport in the easternmost Black Sea

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The regional forecasting system of the Black Sea state for its easternmost part (the liquid boundary passes along 39.080 E), which has been developed within the EU International projects ARENA and ECOOP, is one of the components of the basin-scale Black Sea nowcasting/forecasting system. A core of the regional forecasting system is a high-resolution baroclinic regional model of the Black Sea dynamics developed at M. Nodia Institute of Geophysics (Tbilisi, Georgia). This model is nested in the basin-scale model of Marine Hydrophysical Institute (Sevastopol/Ukraine). At present the regional system is extended by inclusion in the system the module of oil spill transport which is based on solution of the advection-diffusion equation for nonconservative impurity using the two-cycle splitting method. The regional forecasting system provides 3 days' forecasts of 3-D dynamical fields – flow, temperature and salinity, and in case of accidental situations – the forecast of spreading of the oil pollution zones and concentrations with 1 km spacing. The analysis of the predicted hydrophysical fields cumulated for 2010-2014 shows that the easternmost water area of the Black Sea is a dynamically very active region where there is continues generation, evolution and disappearance of the cyclonic and anticyclonic eddies of different sizes. The numerical experiments, which are carried out in case of different location of hypothetical sources of oil pollution and predicted circulating modes, show a significant role of hydrodynamic factors in formation of some features of spatial - temporary distribution of oil pollution.

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T3 - TS1 (Abstract 390)

Marine Spatial Planning-How Far It is Important for the Developing States: A Bangladesh Perspective

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The Bay of Bengal is a lobe of the Indian Ocean. It forms a roughly oval shape that measures 1,800 km at its widest point, and 1,500 km at its longest point, covering an area of nearly 2.2 million sq km. The countries of the Bay of Bengal sub-region (hereinafter the region) in South Asia include Bangladesh, India and Myanmar. The settlement of maritime boundary delimitation between Bangladesh and Myanmar has brought forefront the issue of transboundary MSP between Bangladesh and Myanmar. A transboundary MSP has become very important for the region, not only for its holistic approach to integrate and sustainable manner of sea use management, but also for the sustainable development and survival of the countries in the region. The rationality of MSP for the region has close conjunction with the economic, ecological and social value and sustainable potentiality of the Bay of Bengal. The littoral States of the region must value the necessity of managing the ocean resources and activities in an integrated and sustainable manner so that the marine and coastal ecosystem will not be affected. This paper will analyse the reason why MSP is necessary for the coastal states of this region especially for Bangladesh.

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