

Fluorescence LiDAR UFL-9 investigations of chlorophyll a, CDOM and TSM spatial distribution on the Lake Issyk-Kul

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Results of two field surveys on the Lake Issyk-Kul made by Shirshov scientific group in 2014, 2015 are presented, obtained with the help of fluorescence LiDAR UFL-9. High resolution maps of spatial distribution of chlorophyll a, colored dissolved organic material (CDOM) and total suspended matter (TSM) concentrations in the upper water layer are shown and discussed.

Issyk-Kul Lake is the ultra oligotrophic water body in which the concentrations of the constituents mentioned above are fairly low, but well distinguishable by fluorescence lidar. Explorations were conducted onboard the moving medium-size research vessels in various weather and daytime conditions in continuous mode.