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Metamorphization of the salt composition of the Aral Sea during the desiccation of the sea

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The changes in the salt composition of the Large Aral Sea water from the pre-desiccation period to the present moment are described by analyzing numerous water samples collected from the lake. The changes are due to chemical precipitation of gypsum and other compounds in the course of the anthropogenic salinization of the Sea. The most notable alterations have occurred to the content of Ca and also in the so-called chloride-to-sulfate ratio essentially characterizing the chemical type of the water body. Long-term trends and seasonal variability of the salt composition are identified. The variability of the salt composition with respect to the depth and between the basins of the Sea is described. The analysis includes the data from the most recent water sampling campaign of the fall of 2005.