

## **SEPARATION OF TERRIGENOUS MATERIAL OF SOLID DISCHARGE OF RIVERS IN SEDIMENTATION IN LAKE BAIKAL**

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The analysis of mineral grains, 0.25-0.05 mm fractions, of terrigenous suspension of the Baikal tributaries considering the shape of particles showed that each mineral is characterized by its own value of hydraulic grain size. Thus, while settling on the sedimentation geochemical barrier the minerals divide. One group of minerals retains on the avandelta, the other group only partially, and the third one is completely transferred to the pelagic part of the lake. Of 3600 thousand tons of solid discharge in the coastal zone of Baikal half precipitates which defines sedimentation rates by one-two-fold exceeding such in the pelagic areas of the lake. This defines higher intensity of early diagenetic processes in the bottom sediments of avandeltas and shallow water sites. The coastal part of Baikal with depth 50 m serves as the primary and powerful place for self-purification playing the decisive role in transportation and differentiation of the terrigenous material and transportation of polluting components from water medium into sediments. This particular part of the lake making up 6% of its volume contains all accessible water resources and is the zone of active water consumption. Self-purification takes place due to sorption and oxidation processes with participation of water and bottom microflora. The work has been carried out under support of Federal Project "Integration", project 191.