

CHANGE IN ISOTOPIC CONTENT OF SNOW AS A RESULT OF EVAPORATION FROM THE SNOW SURFACE

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The authors present the results of laboratory experiments on the isotopic content change in snow by evaporation under isothermal conditions. Opposite to often assumed invariance of the isotopic composition of snow as a result of surface evaporation, the obtained data showed considerable decrease in $\delta^{18}\text{O}$ and δD of isothermally-evaporating snow in one and half months. The process of surface evaporation forms certain depth-profiles of the isotopic composition of snow. The enrichment in heavy-isotopes was also observed at the surface of evaporating ice samples. The possible influence of the related to evaporation isotopic content change in seasonal snow on the results of paleo-climate interpretations is discussed.