

# The spatial feature of tritium content in precipitation over Siberia

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The spatial variation in the tritium content of precipitation collected at 13 monitoring stations across Russia in 2000 was determined. The results show a tendency toward higher tritium content farther inland through a year. At the coastal regions, the tritium content is almost constant from 5 TU to 15 TU, however a distinct seasonality is observed in the continental region, with maxima during summer and minima during in winter. The maximum tritium content, which reaches around 37 TU, is observed at Bogdarin (54.6N, 113.1E) in eastern Siberia during summer. Thus the tritium gradient is significantly larger in summer than in winter. In Siberia, more than half of the moisture that forms summer precipitation originates from land surface, thus the high tritium content at inland stations must be related with the contribution of recycling water. Compares of observed summer tritium content of precipitation and calculated recycling ratio show the strong linear relationship, thus the tritium is used as an indicator of the contribution of recycling water in precipitation in Siberia region.