Isotopic investigations of small mountain groundwater flow dominated river

M. Brencic (1), P. Vreca (2)

(1) Department of Hydrogeology, Geological Survey of Slovenia, Dimiceva 14, Ljubljana, Slovenia, mbrencic@geo-zs.si

(2) Jozef Stefan Institute, Jamova 39, Ljubljana, Slovenia, polona.vreca@ijs.si

Small groundwater flow dominated river Radovna in NW Slovenia (Central Europe) was studied with stable isotope analyses of $\delta^2$H and $\delta^{18}$O, $\delta^{13}$C$_{DIC}$ in combination with hydrochemical analysis. Water catchment of the river is represented by fissured and karstified carbonate rocks. The total length of the river is 25 km and long term mean yearly discharge is 7.2 m$^3$/s. Valley of the river is relatively narrow not exceeding 2 km. Results of monthly sampling performed along the river and on springs that recharge river are presented in the paper.