Sediment Samples from the Dobczyce Dam Reservoir (Southern Poland) – Mariusz Macherzyński, Witold Reczyński, J. Sanecki, Jerzy Górecki, Janusz Gołaś

Summary

In the study we have focused on the distribution of several metals (Cr, As, Pb) and anions (Cl^-, NO_3^-, SO_4^{2-}) and their partition between pore (interstitial) waters and sediments sampled at three stations at the Dobczyce Reservoir which supplies the drinking water to inhabitants from the city of Kraków and its agglomeration. The results show considerable increase in concentrations of Pb and As in pore water samples, when compared to the bottom waters. Meaningful alternations in concentration were observed in case of pore water samples (Pb, As) and sediments (Cr, Pb, As), coming from three stations and their lateral sections. The possible relations between this phenomenon and the sediment characteristic as well as the Fe and Ca content, has been studied. Some comments on the seasonal variations of anion contents in water and pore water samples, are also provided. It was found that nitrates and sulphates show considerable variations.