

THE USE OF ULTRAFILTRATION AND REVERSE OSMOSIS IN THE DESALINATION OF LOW MINERALIZED GEOTHERMAL WATERS

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Abstract: Compared to other European countries, Poland has scarce drinking water resources and exhibits significant variation in annual runoff. On the other hand, the geothermal water resources present in sedimentary/structural basins, mostly in the Polish Lowlands and the Podhale geothermal system, not only provide a valuable source of renewable energy, which is utilized, although only to a limited extent, but can also be used for many other purposes. The paper presents the results of studies related to the desalination of low dissolved mineral content geothermal waters from the Bańska IG-1 well using a dual hybrid system based on ultrafiltration and reverse osmosis. The desalination of geothermal waters may be considered a possible solution leading to the decentralization of drinking water supply. In many cases, using cooled waters for drinking purposes may be considered an alternative method of disposing of them, in particular for open drain arrangements, i.e. where cooled water is dumped into surface waters.