

New technology being developed for use in Jordan desalination plant

August 19 2009

Researchers at Ben-Gurion University of the Negev are developing technology to scale up a novel method for achieving very high recoveries in desalination by reverse osmosis to be used in a Jordanian desalinization plant.

The team, lead by Dr. Jack Gilron of the Zuckerberg Institute for Water Research (ZIWR) and Prof. Eli Korin of the Department of Chemical Engineering, has developed a method of exploiting the finite kinetics of membrane fouling processes by periodically changing the conditions leading to membrane fouling before it can occur. The team was recently awarded grants from the NATO Science for Peace program and the Middle East [Desalination](#) Research Center (MEDRC).

Working in collaboration with colleagues from University of Colorado and the Hashemite University of Jordan, the group will be developing technology and setting up pilot facilities to produce ~120 m³/day (31,000 gallons) at desalination sites in Israel and in Jordan. Dr. Gilron explains that "the process will be tuned to reduce brine volumes to 33-50 percent of those generated in conventional reverse osmosis. This greatly reduces the environmental burden and improves the economics of the inland desalination process."

Gilron continues, "Water scarcity and the need to develop new water resources for populations not on the seacoasts are driving efforts to desalinate brackish water and municipal wastewater with ever-increasing efficiencies."

Related to the above development, BGN Technologies - the University's technology transfer company and the ATI (Ashkelon Technology Incubator) Cleantech Group have established a new company, ROTEC (Reverse Osmosis Technologies) to commercialize the technology. Israel's national water company, Mekorot, selected ROTEC as one of a handful of promising companies in which it invests R&D funding to help promote novel [water](#) treatment technologies worldwide and in Israel.

Source: American Associates, Ben-Gurion University of the Negev
([news](#) : [web](#))

Citation: New technology being developed for use in Jordan desalination plant (2009, August 19)
retrieved 9 April 2024 from <https://phys.org/news/2009-08-technology-jordan-desalination.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.