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Autore	Höpfner Johannes
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Sommario/riassunto	The scarcity of potable water is a great challenge. It may be resolved by the desalination of seawater. In this work, the possibilities of a new desalination technique using polymeric hydrogels as a separation medium for water and salt is explored. The bound charges in such a polymeric network prevent salt from entering it - under pressure the desalinated water is released from the gel. It is demonstrated that the method is viable and the influence of various process parameters investigated.