DESALINATION THROUGH MEMBRANES: REVERSE OSMOSIS AND ELECTRODIALYSIS

J.M.GOHIL AND P.RAY*

Desalination is a water treatment process that separates salt from saline water to produce fresh water having a low content of total dissolved solids (TDS) mg/l. With the ever-increasing demand of fresh water it has become imperative to search for new technologies to produce fresh water from saline water. Desalination opens up a wide range of raw water sources starting from the ocean to underground brackish water. Membrane based separation processes specifically Reverse Osmosis (RO) and Electrodialysis (ED) have been found to be highly useful for desalination. These processes are less energy intense, as they do not involve any phase change. The present article deals with the details of these two membrane based desalination processes.