

- ▶ Crosslinking of the CNTs with the PVA forms a hydrophilic and robust conductive thin film.
- ▶ The distinct dual layer structure of these hydrophilic-hydrophobic membranes allows the vapor formation at the PTFE/CNT interface achieving salt rejection in excess of 99%.
- ▶ The use of high frequency alternating current (AC) eliminates the formation of the EDL and therefore the CNT degrading electrochemical reactions are eliminated.

SUGGESTED USES

- ▶ Water treatment
- ▶ Membrane distillation
- ▶ Pervaporation
- ▶ Gas separation
- ▶ Brine extraction
- ▶ Desalination

RELATED MATERIALS

- ▶ [Frequency-dependent stability of CNT Joule heaters in ionizable media and desalination processes](#)

INVENTIONS BY PROF. DAVID JASSBY

Please see [all inventions by Prof. David Jassby and his team](#) at UCR

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