

## In this issue

Avner Ronen, Sharon L. Walker and David Jassby

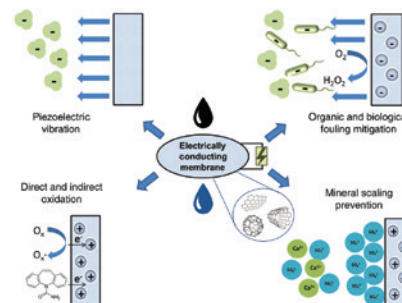
### Electroconductive and electroresponsive membranes for water treatment

DOI 10.1515/revce-2015-0060

Rev Chem Eng 2016; 32(5): 533–550

**Review:** Electrically conducting and responsive membranes have been shown to be efficient in fouling mitigation by several mechanisms, including electrostatic rejection, piezoelectric vibrations, and electrochemical reactions; furthermore, electrochemical reactions coupled with membrane filtration demonstrated the capability of ERM to electro-oxidize organic contaminants with high efficiency.

**Keywords:** electro-Fenton; electro-oxidation; electroreactive conductive membranes; electrostatic repulsive force; hydrogen peroxide; piezoelectric membranes; pore size; wettability.



Ji-min Wang, Guo-hua Liu, Yun-long Fang and Wen-ke Li

### Marangoni effect in nonequilibrium multiphase system of material processing

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Rev Chem Eng 2016; 32(5): 551–585

**Review:** The Marangoni effect of material processing, namely, crystal growth, welding, and surface treatment, is reviewed from visualization observation, mathematical resolution, and numerical simulation. The immediate topics for future research focus are suggested as well.

**Keywords:** interphase transfer; Marangoni effect; material processing; nonequilibrium multiphase system.

