# In this issue

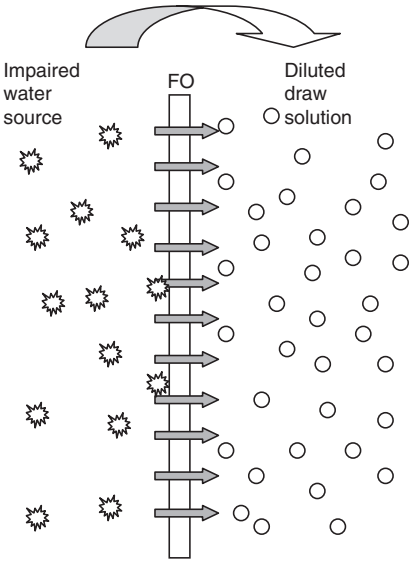
Bart Van der Bruggen and Patricia Luis

**Forward osmosis: understanding the hype**

DOI 10.1515/revce-2014-0033
Rev Chem Eng 2015; 31(1): 1–12

**Review:** Forward osmosis can only be beneficial when integrated with a different process in which recovery of the draw solution is not required.

**Keywords:** concentration polarization; desalination; draw solution; forward osmosis; irrigation; membrane technology; wastewater treatment; water treatment.



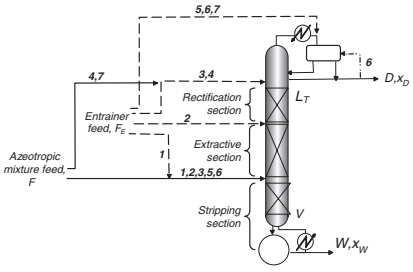

Weifeng Shen, Hassiba Benyounes and Vincent Gerbaud

**Extractive distillation: recent advances in operation strategies**

DOI 10.1515/revce-2014-0031
Rev Chem Eng 2014; 31(1): 13–26

**Review:** This paper provides an overview of thermodynamic insight, pinch-point analysis, process operation policies, and different configuration strategies in continuous or batch extractive distillation columns.

**Keywords:** batch; bifurcation theory; continuous; extractive distillation; operation strategies; thermodynamic analysis.



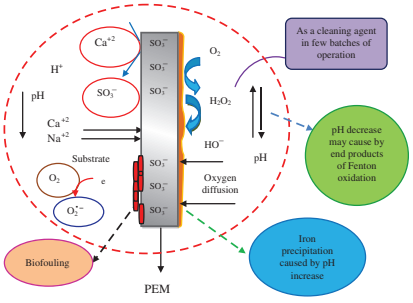

Anam Asghar, Abdul Aziz Abdul Raman and Wan Mohd Ashri Wan Daud

**Challenges and recommendations for using membranes in wastewater-based microbial fuel cells for *in situ* Fenton oxidation for textile wastewater treatment**

DOI 10.1515/revce-2014-0030
Rev Chem Eng 2015; 31(1): 45–67

**Review:** Limitations of separator membranes in microbial fuel cell for *in situ* Fenton oxidation for textile wastewater treatment.

**Keywords:** biofouling; hydrogen peroxide; *in situ* Fenton oxidation; microbial fuel cell; oxygen diffusion; proton exchange membrane.



Zahid Majeed, Nur Kamila Ramli, Nurlidia Mansor and Zakaria Man

**A comprehensive review on biodegradable polymers and their blends used in controlled-release fertilizer processes**

DOI 10.1515/revce-2014-0021
Rev Chem Eng 2015; 31(1): 69–95

**Review:** The synergistic triad of multiple variables, physical, chemical and biological, stimulates the cascade of biodegradation in PC-CRFs under natural soil conditions that result in the loss of initial undesired fast nutrient release (at a high concentration gradient) but benefits the complete release of trapped nutrients (a low concentration gradient) over time in PC-CRF's gradual decay process.

**Keywords:** biodegradation; controlled-release fertilizers; kinetic models.