



## **Ion and Molecule Transport in Membrane Systems 2.0**

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### **Message from the Guest Editor**

A description of ion and molecule transportation through all kinds of membranes, similarities in the behavior of biological and artificial membranes; biomimetic structural features of artificial membranes and their impact on membrane properties and performance for separation processes; the physico-chemical and chemico-physical aspects of ion and molecule transportation; the equilibriums and kinetics of transportation processes in membrane systems; the coupling of ion and molecule transportation with chemical reactions and catalysis; the impact of forced and natural convection on ion and molecule transportation; the mechanisms of electric current-induced convection and their impact on ion and molecule transportation across membranes; concentration polarization and the coupled effects occurring in membrane systems under the action of external pressure and electric driving forces (external pressure and electric potential gradients applied to a membrane); and the physico-chemical and chemico-physical aspects of transportation, separation, purification, and fractionation of organic acids, bioactive compounds, ampholytes, and nutrients, in membrane systems.





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