Special Issue

Fractionation of Organic Acids via Electrodialysis: Extraction Processes and Electrochemical Characterization of Ion-Exchange Membranes

Message from the Guest Editors

The production of organic acids has received significant attention in recent years due to their broad applicability and, in particular, their inherent biodegradability. One of the major challenges in the production of organic acids is the efficient separation of the target compounds from side products generated in concurrent reactions. Of the available separation technologies, membrane-based processes—especially electrodialysis—have shown promise, as they enable the recovery of organic acids without the need for chemical additives. Nonetheless, the selective fractionation of organic acids via electrodialysis remains a considerable challenge, primarily due to the similarity in the ionic size and charge of these species, which facilitates their co-transport through ion-exchange membranes. To address this issue, ongoing research has focused on the development of advanced ion-exchange membranes and the optimization of process parameters to enhance separation performance. In particular, the electrochemical characterization of novel membranes is essential to determine their transport properties and assess their potential for the selective separation of structurally similar organic acids.

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You are cordially invited to contribute a research article or a comprehensive review for consideration and publication in *Membranes* (ISSN 2077-0375). *Membranes* is an international, peer-reviewed open accessjournal of membrane technology published monthly online by MDPI. The journal covers the broad aspects of the science and technology of both biological and non-biological membranes, including membrane dynamics and the preparation and characterization of membranes and their applications in water, environment, energy, and food industries. Articles contributing to better understanding of transport processes in all types of membranes are also welcome. The scientific community and the general public have unlimited and free access to the content as soon as it is published. We would be pleased to welcome you as one of our authors.

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