Special Issue

Polymer Membranes for Energy Applications

Message from the Guest Editor

Polymer electrolyte membranes (PEMs) are key components of electrochemical energy conversion technology such as fuel cells, electrolyzers, and flow batteries. Although Dupont's NafionTM dominates the PEM research field, it has drawbacks in terms of high material cost and the lack of synthesis versatility. Since each application has different requirements of its membrane, appropriate molecular design to harness specific properties is important in the development of PEMs. To address the issues, various hydrocarbon-based proton exchange membranes have been suggested. The performance and cost of membranes can be tuned by changing the molecular structures and their methods of synthesis. Recently, anion exchange membranes have gained much attention as electrochemical devices operating in alkaline conditions. Alkaline operating conditions allow for non-precious metal catalysts and less expensive cell hardware to be used instead of expensive platinum group metal catalysts and acid-resistant cell hardware, respectively.

Guest Editor

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Since its foundation in 2009, *Polymers* has developed into an internationally renowned, extremely successful open access journal. The editorial team and the editorial board dedicatedly combine open-access publishing and high-quality rigorous peer reviewing. The performance of the journal has proven this strategy to be well-suited and highly successful. This is reflected in the increasing impact factor of *Polymers*, the most recent one being 4.9.

I would like to invite you to contribute to the success of the journal by sending us your high quality research papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

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