Special Issue

Properties of Supported Ionic Liquid Membranes

Message from the Guest Editor

Over the last decades, considerable effort has been devoted to synthesizing a number of novel ionic liquids also known as “solvents of the future” or “designer solvents”. Their main advantages are their near-zero vapor pressure and their good chemical and thermal stabilities, having a large temperature range where they are stable with negligible vapor pressure.
Nowadays, they are used in a large variety of applications in all areas of chemical industries. Moreover, ionic liquids can be used as a membrane separation layer and/or a catalytically active site, but for this application it has to be impregnated into a porous support. Additionally, this integrated or even hybrid material is called the supported ionic liquid membrane (SILM). SILM is not only stable because of negligible vapor pressure of the ionic liquid, the possibility of minimizing its solubility in the surrounding phases by adequate selection of the cation and anion, and its high viscosity, but it also has high ion conductivity and high solvent power.

Guest Editor

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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