



Physico-chemical properties and environmental impact of ionic liquids: Ionic Liquids: Green Solvents Or Emerging Pollutants?

By Yun Deng

LAP LAMBERT Academic Publishing, 2012. Taschenbuch. Book Condition: Neu. Neu Neuware; original eingeschweisst; Rechnung mit MwSt.; new item, still sealed; - Ionic liquids attract increasing interest as promising high performance fluids with low environmental impact that can be applied in the fields of chemistry, chemical engineering or materials science both in processes or as devices. However, the application of ionic liquids at an industrial scale is still limited, because the fundamental information and reliable data on their properties, environmental fate and impact are rare. In this work, we have studied different ionic liquids based on the imidazolium, pyridinium, pyrrolidinium and ammonium cations and with three types of anions. Our objective was to examine if the ionic liquids containing functional groups (hydroxyl /ester /ether) in the cations effectively have lower environmental impact, and if their interesting properties are remained. We have determined several physico-chemical and biological properties considered important for the application and to quantify the environmental impact of chemicals. Additionally, we have developed some empirical and semi-empirical models based on molecular structure information for predicting some of these properties. 180 pp. Englisch.



Reviews

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