

Accepted Manuscript

Infinite dilution activity coefficients of solutes dissolved in anhydrous alkyl(dimethyl)isopropylammonium bis(trifluoromethylsulfonyl)imide ionic liquids containing functionalized- and nonfunctionalized-alkyl chains

Fabrice Mutelet, Dominique Alonso, Sudhir Ravula, Gary A. Baker, Bihan Jiang, William E. Acree Jr.

PII: S0167-7322(16)31254-5
DOI: doi: [10.1016/j.molliq.2016.07.012](https://doi.org/10.1016/j.molliq.2016.07.012)
Reference: MOLLIQ 6026

To appear in: *Journal of Molecular Liquids*

Received date: 19 May 2016
Revised date: 17 June 2016
Accepted date: 2 July 2016

Please cite this article as: Fabrice Mutelet, Dominique Alonso, Sudhir Ravula, Gary A. Baker, Bihan Jiang, William E. Acree Jr., Infinite dilution activity coefficients of solutes dissolved in anhydrous alkyl(dimethyl)isopropylammonium bis(trifluoromethylsulfonyl)imide ionic liquids containing functionalized- and nonfunctionalized-alkyl chains, *Journal of Molecular Liquids* (2016), doi: [10.1016/j.molliq.2016.07.012](https://doi.org/10.1016/j.molliq.2016.07.012)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



**Infinite Dilution Activity Coefficients of Solutes Dissolved in Anhydrous
Alkyl(dimethyl)isopropylammonium bis(Trifluoromethylsulfonyl)imide Ionic Liquids
Containing Functionalized- and Nonfunctionalized-Alkyl Chains**

Fabrice MUTELET^a, Dominique ALONSO^a, Sudhir RAVULA,^b Gary A. BAKER^b, Bihan JIANG^c, William E. ACREE, Jr.^c

^a Universite de Lorraine, Laboratoire de Reactions et Genie des Procédés (UPR CNRS 3349), 1 rue Grandville, BP 20451 54001 NANCY, FRANCE.

^b Department of Chemistry, University of Missouri-Columbia, COLUMBIA, MISSOURI 65211.

^c Department of Chemistry, 1155 Union Circle #305070, University of North Texas, DENTON, TEXAS 76203-5017.

Abstract

Infinite dilution activity coefficients and gas-to-liquid partition coefficients have been determined for at least 42 different organic solutes of varying polarity and hydrogen-bonding character dissolved in anhydrous ionic liquids comprising propyl(dimethyl)isopropylammonium bis(trifluoromethyl-sulfonyl)imide, hexyl(dimethyl)isopropylammonium bis(trifluoromethylsulfonyl)imide, 2-hydroxyethyl(dimethyl)isopropylammonium bis(trifluoromethylsulfonyl)imide, cyanomethyl(dimethyl)isopropylammonium bis(trifluoromethylsulfonyl)imide, and N,N,N',N'-tetramethyl-N,N'-diisopropyl-1,9-nonanediaminium di[bis(trifluoromethylsulfonyl)imide]. The measured gas-to-liquid partition coefficient data were converted to water-to-liquid partition coefficients using standard thermodynamic relationships. Abraham model predictive correlations were developed from both

Download English Version:

<https://daneshyari.com/en/article/5409894>

Download Persian Version:

<https://daneshyari.com/article/5409894>

[Daneshyari.com](https://daneshyari.com)