FLUID PHASE EQUILIBRIA

An International Journal

AUTHOR INFORMATION PACK

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DESCRIPTION

Fluid Phase Equilibria publishes high quality papers dealing with experimental,theoretical and applied research related to **equilibrium** and **transport properties** of **fluid** and **solid phases**.

The fluid phase properties of interest include:
PVT, enthalpies, heat capacities, Joule-Thomson coefficients, Gibbs and Helmholtz energies, chemical potentials, activity and fugacity coefficients, critical properties, chemical equilibria, multiphase equilibria and interfacial properties, thermal conductivity, viscosity and rheological properties, and diffusion coefficients.
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AUDIENCE

Researchers and Applied Scientists, particularly those in chemical and metallurgical engineering, concerned with the properties or applications of fluid phase equilibria.

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Editorial and Introduction

Editorial

New procedures for articles reporting thermophysical properties

Fluid Phase Equilibria, along with other journals in the field, established collaboration with the Thermodynamics Research Center (TRC) of the National Institute of Standards and Technology (NIST) in 2009 for the purpose of ensuring the quality of published experimental data. In a joint statement [1], the editors of the five journals involved set out the rational for the cooperation in terms of helping to ensure that authors and reviewers were made aware of any previously-published literature values for the properties and systems in question. The process involved NIST 'capturing' the new experimental data, comparing it against existing values in the NIST data archive and providing a report that: (a) listed relevant literature sources; and (b) highlighted any obvious discrepancies in the new data.

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NIST will continue to provide a data evaluation at the end of the review process, immediately prior to final acceptance of the article. This data evaluation will compare the reported experimental data with that existing in the NIST Data Archive and highlight any unexpectedly large discrepancies, such as those arising from typographical errors. Though the data evaluation step has not changed, we will use this opportunity for a reminder that experimental results and their uncertainties must be tabulated in the way described in the Guide for Authors. A key feature is that tables be self-contained and include the uncertainties of all reported quantities (variables, constraints, and properties). In addition, we have incorporated new standards relating to the description of chemical samples and we encourage authors to present details of their samples in an easily-readable tabular form. To assist authors, a large number of example tables have been prepared by NIST and are available (http://trc.nist.gov/FPE-Support.html).

The new procedures will provide literature citations to authors before submission of their manuscript and speed the review process. Indeed, authors are encouraged to use *ThermoLit* in advance of experiments to help minimize duplication of effort. In 2012, new IUPAC guidelines for the reporting of phase equilibrium measurements were published (Pure Appl. Chem. 2012, 84(8), 1785-1813), and the requirements of this journal are consistent with these recommendations. Prior to submission, authors are strongly encouraged to review a checklist based on these recommendations, which is available (http://trc.nist.gov/FPE-Support.html). We are certain that the new Literature Report tool and the procedures described here will further enhance the already high quality of articles published in *Fluid Phase Equilibria*.

Th.W. de Loos, Editor
Clare McCabe, Editor
J.P. O'Connell, Editor

References

1. P.T. Cummings, Th.W. de Loos, J.P. O'Connell, Fluid Phase Equilibria 276 (2009) 1165-1166.

Aims and Scope

Fluid Phase Equilibria publishes high quality papers dealing with experimental, theoretical and applied research related to **equilibrium** and **transport properties** of **fluid** and **solid phases**.

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A wide range of pure and mixed fluids may be considered:
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Reference to a book:
[2] W. Strunk Jr., E.B. White, The Elements of Style, fourth ed., Longman, New York, 2000.
Reference to a chapter in an edited book:
[3] G.R. Mettam, L.B. Adams, How to prepare an electronic version of your article, in: B.S. Jones, R.Z. Smith (Eds.), Introduction to the Electronic Age, E-Publishing Inc., New York, 2009, pp. 281–304.

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