THE JOURNAL OF CHEMICAL THERMODYNAMICS

TABLE OF CONTENTS

• Description p.1
• Impact Factor p.2
• Abstracting and Indexing p.2
• Editorial Board p.2
• Guide for Authors p.4

DESCRIPTION

The Journal of Chemical Thermodynamics exists primarily for dissemination of significant new knowledge in experimental equilibrium thermodynamics and transport properties of chemical systems. The defining attributes of The Journal are the quality and relevance of the papers published.

The Journal publishes work relating to gases, liquids, solids, polymers, mixtures, solutions and interfaces. Studies on systems with variability, such as biological or bio-based materials, gas hydrates, among others, will also be considered provided these are well characterized and reproducible where possible. Experimental methods should be described in sufficient detail to allow critical assessment of the accuracy claimed.

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INTRODUCTION

General
Please consult this Guide for Authors for further details on the requirements for submitting your paper to The Journal of Chemical Thermodynamics. The guidelines described in this document, as well as those listed in the JCT Style Notes, should be carefully adhered to ensure high-quality and rapid publication of your manuscript.

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The Journal of Chemical Thermodynamics exists primarily for dissemination of significant new measurements in experimental thermodynamics and thermophysics including bio-thermodynamics, calorimetry, phase equilibria, equilibrium thermodynamic properties and transport properties.

The Journal publishes work relating to gases, liquids, solids, mixtures, solutions, interfaces, including polymers and biological materials, provided that the systems studied are characterised and reproducible.

The defining attributes of The Journal are the quality and relevance of the papers published. Authors are expected to describe their methods and present their results in sufficient detail to allow critical assessment of the accuracy claimed.

Further, The Journal welcomes theoretical papers reporting on thermodynamics using molecular theory or modeling, provided the relationship with experiment is clearly described. Review articles will also be considered but prospective authors should first consult one of the Editors concerning the suitability of the proposed review.

Experimental measurements of a routine nature or those conducted on uncharacterised materials are not accepted.

The Journal of Chemical Thermodynamics, along with other journals in the field, cooperates with the Thermodynamics Research Center (TRC) of the National Institute of Standards and Technology (NIST) for the purpose of ensuring the quality of published experimental data. This collaboration relates to articles that report experimental measurements falling within the scope of the NIST ThermoML Archive (http://www.trc.nist.gov/ThermoML.html) and has two elements. First, upon submission of an article, NIST will provide a literature report to the authors and reviewers containing relevant references from the NIST Data Archive. Second, NIST will provide a data evaluation at the end of the review process immediately prior to 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. In order to facilitate the necessary electronic data capture, the experimental results and their uncertainties must be tabulated as described in this Guide (see also http://trc.nist.gov/JCT-Support.html).

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Results should be clear and concise.

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Style Requirements
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6. Symbols should be defined in the text when they are first used, and also in figure and table legends.
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Example
YJCHT_ST_2.JPG
8. The arguments of logarithmic, exponential and trigonometric functions must be dimensionless: e.g. \( \ln(p/\text{MPa}) \) or \( \ln(p/p_0) \) but not \( \ln(p) \).

9. Equations, when displayed, should be centred and numbered, flush right, in parenthesis eg

YJCHT_ST_3.JPG (1)

10. Always puncture after an equation to place it correctly within the sentence that contains it (see example above).

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12. When reporting experimental results, the uncertainty of each measured quantity should be reported and combined in quadrature to obtain the uncertainty of any derived quantities (see http://physics.nist.gov/cuu/).

13. Uncertainties may be specified either as standard uncertainties \( u \) or as expanded uncertainties \( U \) having a specified confidence interval.

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14. Number figures consecutively in accordance with their appearance in the text.

15. Plot each figure in a full rectangular (or triangular) frame.

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23. Similar figures should be plotted in identically-sized frames.

24. Triangular diagrams must be equilateral and must have correctly ticked, scaled and labelled axes on all three sides.

25. Include error bars where appropriate but only when they exceed the size of the plotting symbols.

**Example figure and legend text**

YJCHT_ST_5.JPG

**FIGURE 1.** (a) Densities \( p \) of pentafluoroethane at temperatures \( T \): \( \bullet \), saturated liquid; \( \bullet \bullet \), saturated vapour; \( \cdots \cdots \) , saturated vapour and liquid calculated from Eq. (4). (b) Deviations of experimental saturated liquid densities \( p_1 \) from values \( p_{\text{calc}} \) calculates from Eq. (4).

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Example table and legend text
YJCHT_ST_6.JPG

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34. All chemical samples must be identified by IUPAC systematic name and the following details should be provided: sample source, initial purity, method of purification, final purity (as used) and analytical method used to determine the purity. Preferably, all of these details should be provided in a table (see http://trc.nist.gov/JCT-Support.html).
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39. Chemical depictions of electrochemical cells should be displayed and numbered with upper case roman numerals.

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