

## Editor's Announcement

### Electronic Data Submission for the International Journal of Thermophysics

The IUPAC task group “XML-based IUPAC Standard for Experimental and Critically Evaluated Thermodynamic Property Storage and Capture” has developed the ThermoML standard as the format for exchange and storage of over 120 thermophysical property data types. For more information on this format, see the IUPAC web site (<http://www.iupac.org/namespaces/ThermoML/>) and recent articles in *Chem. Int.*, Vol. 26, Issue 4 (July-August 2004) and in *J. Chem. Eng. Data*, Vol. 48, p. 1 (2003). A thermophysical property database (publicly available) using this format has been developed by the Thermodynamics Research Center (TRC) of the National Institute of Standards and Technology (NIST). NIST has also developed the Guided Data Capture software to facilitate the generation of the ThermoML data file. A number of thermophysical property journals have embraced this process to make data available online for free in this versatile format. Effective immediately, the *International Journal of Thermophysics* will implement this same mechanism for electronic data submission and storage and invite authors to make their data available through this process. The procedure for making data available via the ThermoML database at NIST is described below.

After your article has been peer reviewed (you have received either an acceptance letter or revision package instructions) and the property measured is suitable for data capture, the editor will forward a copy of your manuscript to NIST for preliminary processing. Dr. Chris Muzny ([muzny@boulder.nist.gov](mailto:muzny@boulder.nist.gov)) of NIST will then contact you, the author, to provide you with information about the Guided Data Capture (GDC) software, described below, as well as to provide instructions and templates for preparing your data files, and to invite you to submit your GDC data file to NIST. After you submit the GDC file to NIST, the data will be validated and clarification requested if inconsistencies/discrepancies are

found. When your article is posted on SpringerLink, the data files you provided will be converted by NIST to an XML-based format as described in *J. Chem. Eng. Data*, Vol. 48, p. 1 (2003) and made publicly available at [www.trc.nist.gov](http://www.trc.nist.gov). A link will also be installed between your paper on SpringerLink and the NIST database.

Guided Data Capture, developed by NIST, provides software tools to facilitate the capture of experimental thermodynamic and transport property data for pure fluids, binary and ternary mixtures, and chemical reactions (including change-of-state and equilibrium) under strict data-quality assurance guidelines. The primary focus of the data capture is molecular compounds. Properties of polymers, radicals, and ions cannot be captured at this time. Normally, only properties determined by direct measurement are captured except for the following derived properties: azeotropic properties, Henry's law constants, virial coefficients, activities and activity coefficients, fugacities and fugacity coefficients, and standard properties derived from high precision adiabatic heat capacity calorimetry. An up-to-date list of experimental data that can and cannot be accepted by GDC can be found at <http://www.trc.nist.gov/GDC.html>.

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*Editor-in-Chief*