

## Heat Capacity of Liquids: Critical Review and Recommended Values for Liquids with Data Published Between 2000 and 2004

This project aims to update and extend two publications that contained recommended data on liquid heat capacities for mostly organic compounds: *Heat Capacity of Liquids: Critical Review and Recommended Values*, published in 1996 as Monograph No. 6 of the *Journal of Physical and Chemical Reference Data*, and its Supplement I, published in 2001 in the *Journal of Physical and Chemical Reference Data*, vol. 30, pp. 1199–1689.

Experimental data on heat capacities of pure liquid organic, and some inorganic compounds, published in the primary literature between 2000 and 2004 will be compiled and critically evaluated, and recommended values will be provided. Recommended data, supplemented with assessments of their uncertainty and presented in terms of parameters of correlating equations for temperature dependence of heat capacities, will be developed by critical assessment of calorimetrically determined heat capacities published in the primary literature.

The project, consisting of the monograph and its two supplements, will also provide an exhaustive survey of the literature for all isobaric and saturation heat capacities. The overall number of compounds in the database of recommended data will exceed 2000.

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[www.iupac.org/projects/2004/2004-010-3-100.html](http://www.iupac.org/projects/2004/2004-010-3-100.html)

## Compendium of Targets of the Top 100 Commercially Important Drugs

Published articles on drug discovery frequently point out that most commercially successful pharmaceutical agents act on a relatively small number of molecular

targets. However, there does not appear to be a resource where compiled target information is readily available in a single location.

The goal of this project is to provide a resource containing the following information on the targets of the most commercially important drugs: type of target (enzyme, receptor, etc.); brief description of relevance to disease or indication; reference to knockout information, if available; reference to structural information, if available; listing of the marketed drugs that interact with the target along with potency and relevant selectivity information. It is anticipated that this compendium will be a valuable teaching and reference source for the drug discovery community.

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[www.iupac.org/projects/2004/2004-025-1-700.html](http://www.iupac.org/projects/2004/2004-025-1-700.html)

## Critically Evaluated Propagation Rate Coefficients for Free-Radical Polymerization of Water-Soluble Monomers Polymerized in the Aqueous Phase

This project, which emerged from the activities of the IUPAC Subcommittee on Modeling of Polymerization Kinetics and Processes, represents a continuation of the successfully completed projects on benchmark propagation rate coefficients of free-radical polymerization of styrene, of a series of methacrylates, and of butyl acrylate. The IUPAC-recommended technique of pulsed-laser-initiated polymerization in conjunction with size-exclusion-chromatography (PLP-SEC), encounters several difficulties when applied to polymerization of water-soluble monomers in the aqueous phase. For this reason, precise information on individual rate coefficients for this type of polymerizations is lagging behind information on hydrophobic monomers.

In recent years, several groups around the world have successfully started to apply the PLP-SEC technique to water-soluble monomers and to identify the effects of solvent, ionic strength, and pH (in case of ionizable monomers) on propagation rate. The project aims to provide reliable propagation rate coefficients of water soluble monomers within extended ranges of