

The Critically-Evaluated DIPPR® 801 Physical Property Database Accessed Via the DIADEM Software Interface

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The DIPPR® 801 electronic database is a dynamic collection of manually evaluated thermo-physical property data with an emphasis on quality and completeness. Thermo-physical property experts from the twenty-six DIPPR® 801 sponsor companies and from Brigham Young University, the DIPPR® 801 principal investigator, research and critically evaluate experimentally obtained physical property values reported in literature. These experts give a recommendation as to which of all reported property values is most reliable, or will recommend a predicted value when experimental information is not available. Currently, the DIPPR® 801 database contains recommendations for 34 constant properties and 15 temperature-dependent properties for 2,220 compounds. New compounds and properties are added each year under the direction of the sponsor companies. The DIPPR® Interface and Data Evaluation Manager (DIADEM) is an interface and data analysis tool designed for use with the DIPPR® 801 database and with user-developed databases. This software tool allows data search, organization, graphical comparison of multiple properties or compounds, temperature-dependent property regression from raw data, property prediction using a 200-method property prediction package, and prediction method evaluation.