

A Network Database System for Thermophysical Property Data

T. Baba ^{C, S}

*National Metrology Institute of Japan, National Institute of Advanced Industrial Science and Technology,
Tsukuba, Japan*

M. Okumiya

*National Institute of Advanced Industrial Science and Technology, National Institute of Advanced Industrial
Science and Technology, Tsukuba, Japan*

M. Sasaki and K. Ishikawa

*National Metrology Institute of Japan, National Institute of Advanced Industrial Science and Technology,
Tsukuba, Japan*

A. Ono

*National Institute of Advanced Industrial Science and Technology, National Institute of Advanced Industrial
Science and Technology, Tsukuba, Japan*

We have proposed a new approach for constructing a thermophysical property database based on the recent progress of the Internet and personal computers. Based on this approach, a thermophysical property database can be constructed on the Internet by collaboration of scientists, researchers, and engineers who produce data by measurement or evaluation. These collaborators are named as data registrants, and construct and manage their own database independently on the common database management system operated on their personal computers. The database management system is developed under consensus about a standardized format of data expression between the key station and the collaborating organizations. The independent databases in personal computers of registrants are merged to a master database file stored in the database server operated at the key station and opened to worldwide access via the Internet. Even after uploaded to the master database each data in the database server is still owned by the original registrant. The registrant is responsible for the data and can freely access it to correct or revise the data. A user friendly graphical user interface has been developed to register and access thermophysical property data via the Internet efficiently.