

Development of Standard Reference Data of Thermophysical Properties for Process Design

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Thermophysical properties data are critical for design and operation of chemical processes. SOURCE database from NIST and KDB from Korea University are examples of collected database of thermophysical properties and phase equilibrium data. Despite extensive efforts to measure data and construct database, many data are reported either erroneously or incompletely, leading to the development of low-fidelity database. NIST and Korea University have been collaborating to develop quality assessment procedures for thermophysical and phase equilibrium data [1, 2] and resulting reliable thermodynamic models [3,4] for industrial uses. In this presentation, collaboration between NIST and Korea University is outlined.