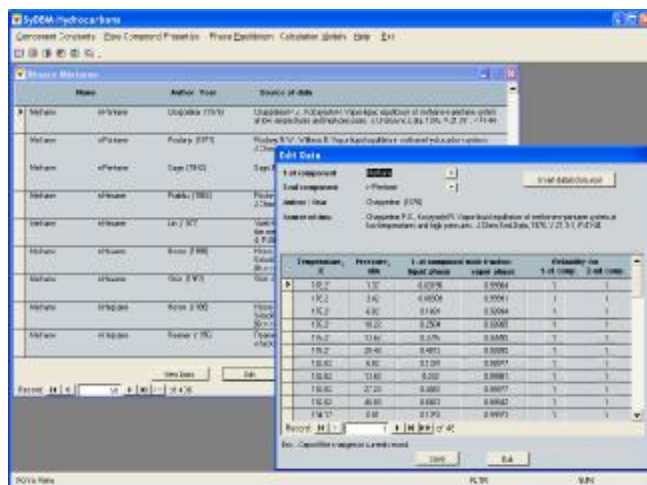


Software package for comparisons of calculated results of phase equilibria and saturated properties of fluids by known and new equations of state (EOS).

SyDBM subsystems

SyDBM contain two subsystems:

- **Database subsystem** for record and storage of experimental thermodynamic saturation data for pure substances, as well as vapor-liquid equilibrium (VLE) data for binary, ternary and multicomponent mixtures;
- **Analytical subsystem** for comparisons of calculated results.



Database

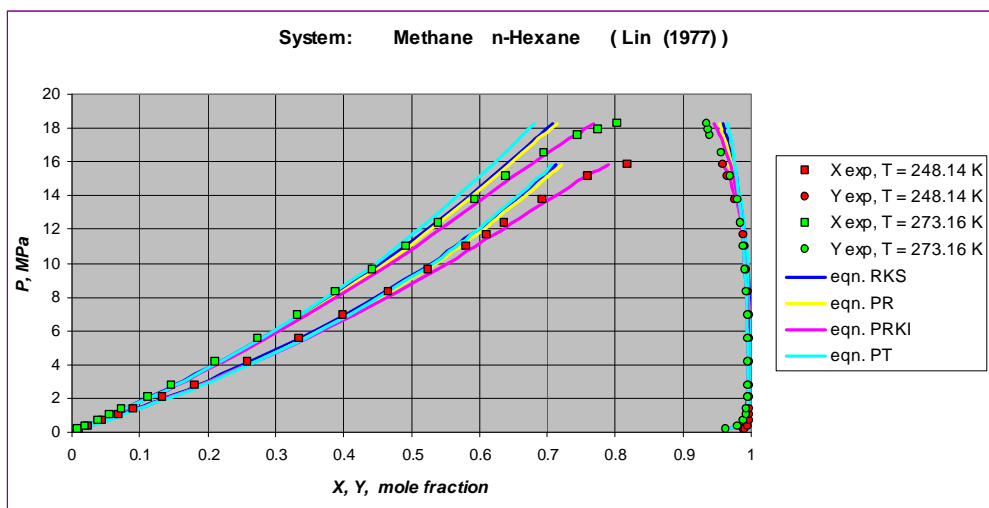
Groups of substances: alkane, naphene and aromatic hydrocarbons, sulphur-organic compounds, alcohols (methanol, ethanol, glycols), nonorganic components of natural gas and oil (helium, hydrogen, nitrogen, carbon dioxide, hydrogen sulfide, water, etc.), pseudocomponents (fractions C5, C6, etc.), with possibility to add other groups of substances.

Thermodynamic properties of pure compounds: vapor pressure, isobaric heat capacity and density of liquids, heat of vaporization, with possibility to include other properties.

VLE-data for 406 binary, 25 ternary and 12 multicomponent mixtures. New data addition capability is also provided.

Analytical subsystem

Benedict-Webb-Rubin EOS and Starling-Han-modification. Redlich-Kwong-Soave (RKS), Peng-Robinson (PR), Patel-Teja (PT) cubic EOS and modifications of EOS. SyDBM allows to include and test new EOS.



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