Modules in PHDT

Modeling—Regular solution model demonstrates the modeling of Gibbs energy of solution phases using Redlich-Kister formula. One can observe how the Gibbs energy curve varies with interaction parameters.

Modeling—Reciprocal system $(A,B)_b(C,D)_c$ shows the Gibbs energy surface of a reciprocal system. One can rotate the 3D model by left-clicking and dragging the mouse.

Modeling—Ordered phase explains the modeling of ordered and disordered phases within the compound-energy formalism.

Modeling—Compound Energy Model (CEM) for ternary $(A,B)_b(A,C)_c$ shows the Gibbs energy surfaces of ternary phases. In addition, two examples illustrate the corresponding isothermal sections.

In ***Chemical potential and activity*** module, the Gibbs energy of one phase is modeled with Redlich-Kister formula. The chemical potential and activity at certain temperature and composition are illustrated.

Gm and binary phase diagram demonstrates how Gibbs energy is correlated to phase diagrams. At each temperature, Gibbs energy curves of phases are drawn and the corresponding phase equilibria are presented. Eutectic type and isomorphous type phase diagram are available in this version.