

Introduction to constrained equilibrium method

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Many processes in chemistry and materials science are non-equilibrium processes. While equilibrium calculations lead to very useful information and support understanding, it is often useful or even necessary to introduce constraints in the thermodynamic calculation. Here, several ways of introducing these constraints in FactSage are introduced:

- Dormant species
- Paraequilibrium calculations with and without diffusing elements
- Scheil cooling calculations
- Immaterial system components ([for work terms and reaction rate constraints](#))

As examples, precipitation from and dissolution in slags, grain boundary partitioning and metastable aqueous solutions are used.