

Computational Thermochemistry for Metallurgical Processes - FACTSAGE

Lecturer: Bora Derin, Assist Prof. (Istanbul Technical University)

Course Program

1th Week

- FactSage - An overlook to the integrated thermodynamic databank system (ITDS)
- Introduction to FactSage Interface
- University-based Research Studies aided by FactSage

2th Week

- Introduction of DataBases, Compound-Solution Modules
- Reaction Module and related examples

3th Week (27th Jan.)

- Phase Stability Diagrams Module and related examples
- Eh-pH Diagrams Module and related examples

4 th Week

- Equilibrium Calculations Module and related examples
- Phase diagrams module for oxides, alloys and molten salts and related examples
- Tools in FactSage

5th Week

Practices for FactSage

- Self propagating High Temperature synthesis
- Mg Reduction via Pidgeon Process
- Recovery of metals from Slag using Electric Arc Furnace
- Desulfurizing a steel by CaSi additions.
- Adiabatic Flame Temperature calculations
- Solubility Behavior of Copper in H₂SO₄ solution
- Copper Converter Process