Computational Thermochemistry for Metallurgical Processes - FACTSAGE

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

Course Program

1st Week

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

2nd Week

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

3rd Week

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

4 th Week (4th Feb.)

- Equilibrium Calculations Module and related examples

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 Convertor Process

5th Week

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