Modelling the reaction kinetics of raw materials in metallurgical processes, such as reduction, is a complex and heterogeneous process. Based on heat, mass and momentum balances the conversion reactions can be described. In order to make a complete estimation of the occurring reaction steps of the raw materials, all running reactions have to be considered individually and then combined with each other, that the whole process of reaction kinetics is completely displayed. An evaluation system should be programmed for this.

**Work packages**
- Recording of measurements to describe metallurgical processes (reduction)
- Implementation of the measurement data in MATLAB
- Programming of a system for automatic data processing and presentation of metallurgical data

**Your profile**
- Language skills: German and English
- Independent work
- Prior knowledge of MATLAB and C++ is recommended.

**Advantageous**
- Basic knowledge of metallurgy, especially in the field of (iron)-reduction

**Example measurement of a DTA experiment**

Determination of the reaction kinetics with a TO