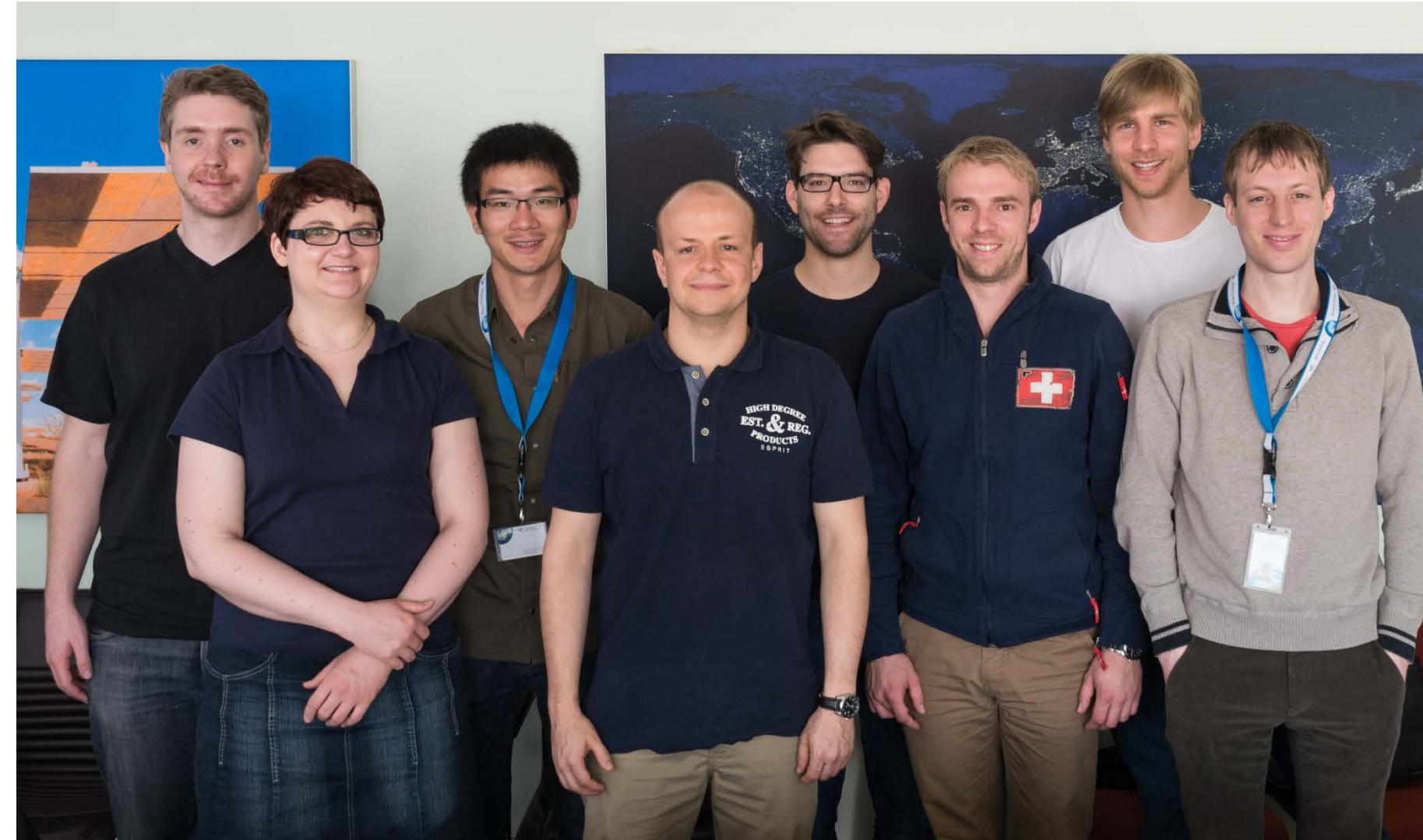


Network of Young Scientists (NYS)

Sponsored by Helmholtz Virtual Institute for Gasification Technology (HVI)

Goals of the NYS:

- Framework for establishing cooperation
- Overcoming research related obstacles
- Sharing of knowledge and experimental and theoretical methodologies
- Creating a structure for introduction and training of new young scientists



Activities

- Presentations of Young Scientists about their field of work
- Discussions about technical issues
- Soft skill training
- Invitation of lecturers
- Technical excursions

Research on High-Pressure-High-Temperature Entrained-Flow Gasification (HPHT EFG)

Gasification experiments

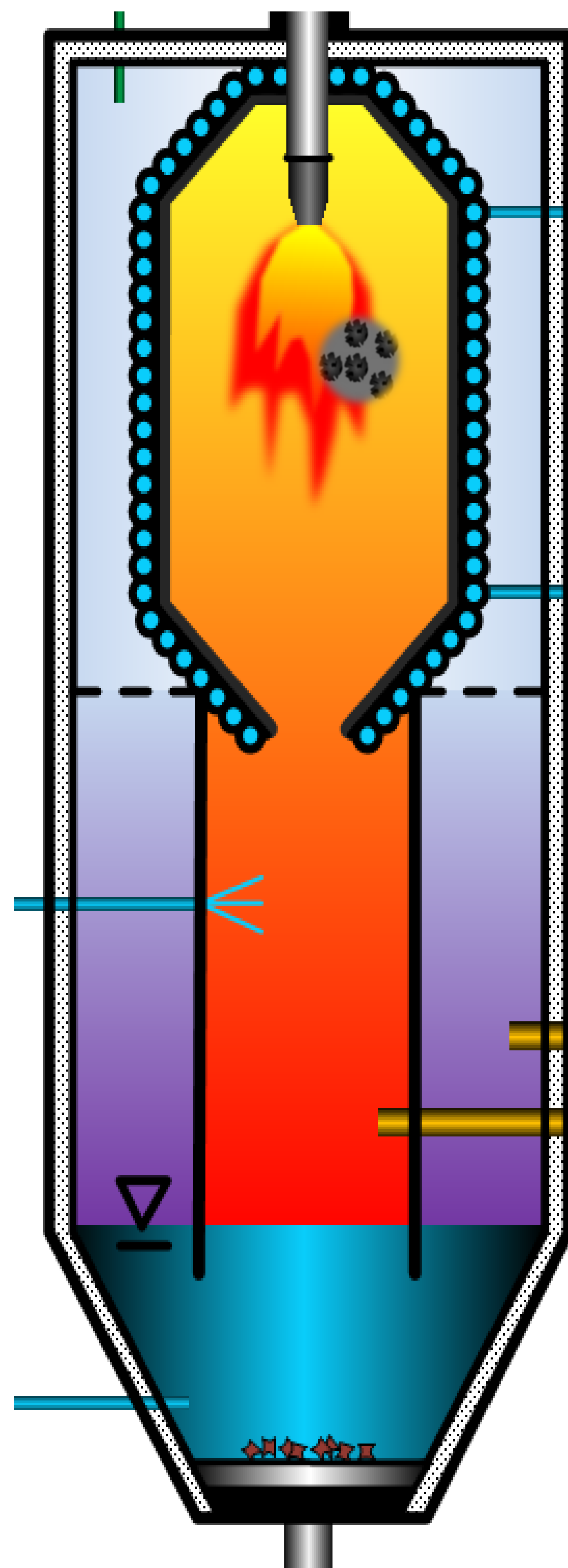
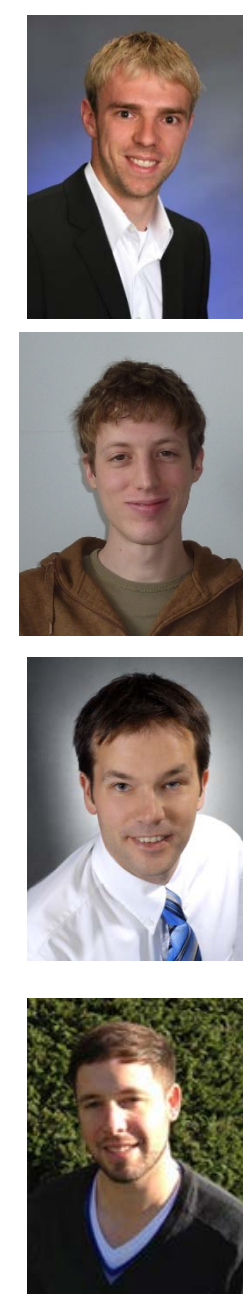
Christian Hotz - Thermo-chemical processes in the burner near-field

Patrick Nau - Gas composition and temp. measurements with absorption spectroscopy

Mark Eberhard - High pressure entrained flow gasification

Alexander Sanger - Atomization of high-viscous suspensions at high pressure

Philip Edinger - Diagnostic Toolbox for gasification measurements

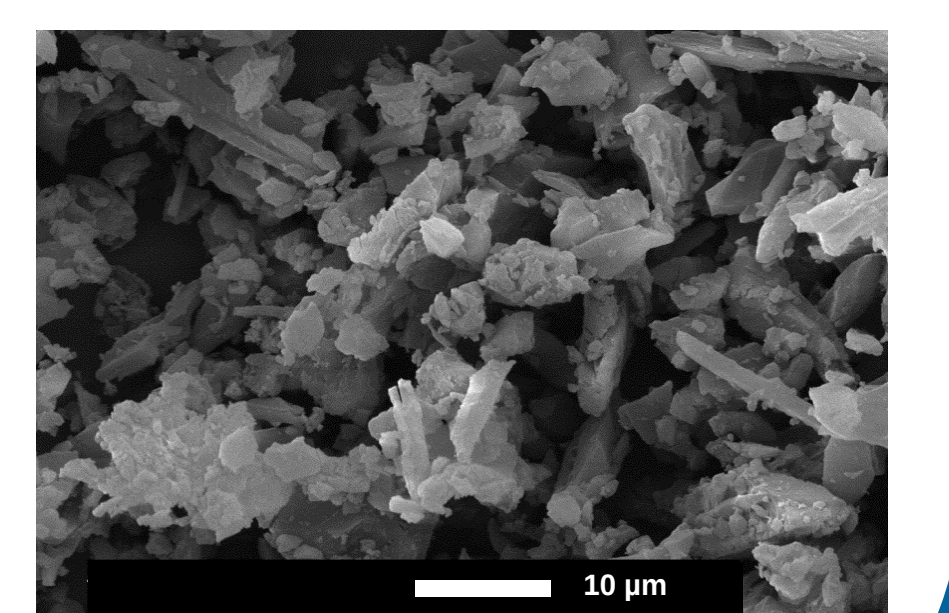
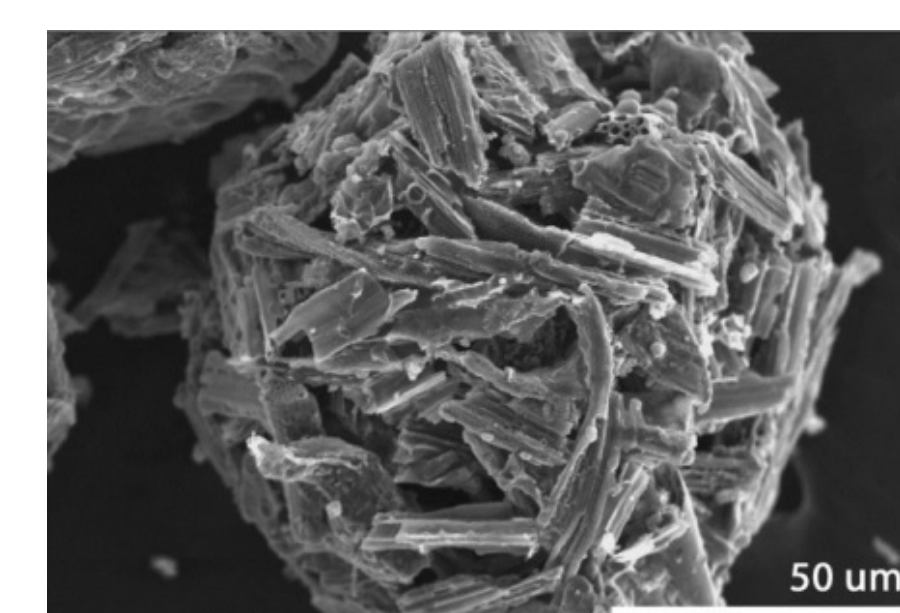


Heterogeneous particle kinetics

Herman Haustein - Char gasification at high heat-up rates

Andreas Mueller - Char gasification at elevated pressures

Philipp Stoesser - Char gasification at high temperatures



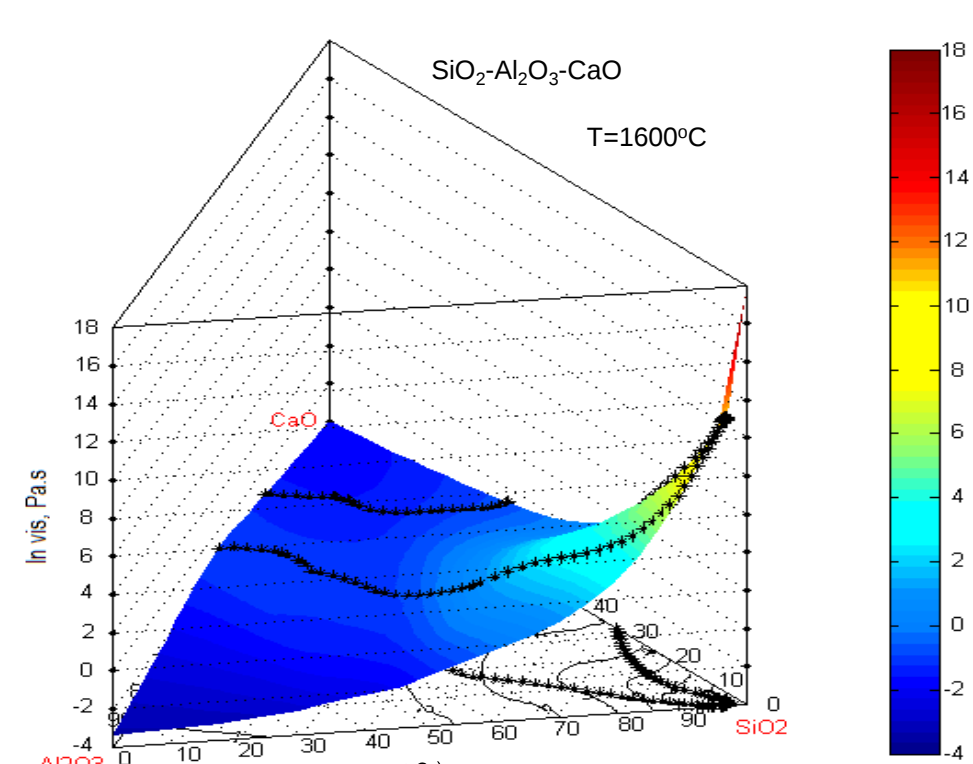
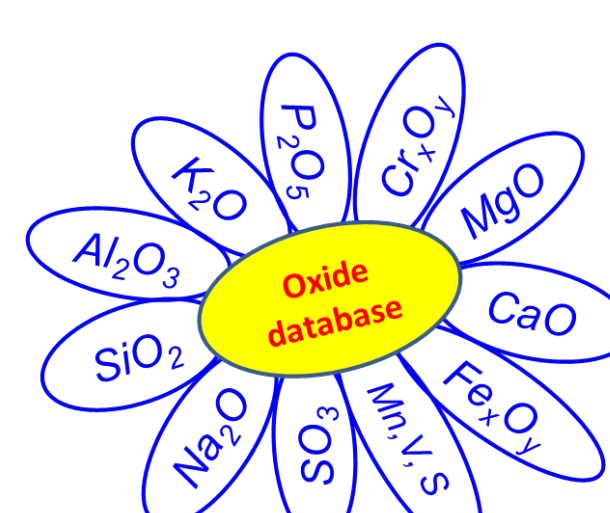
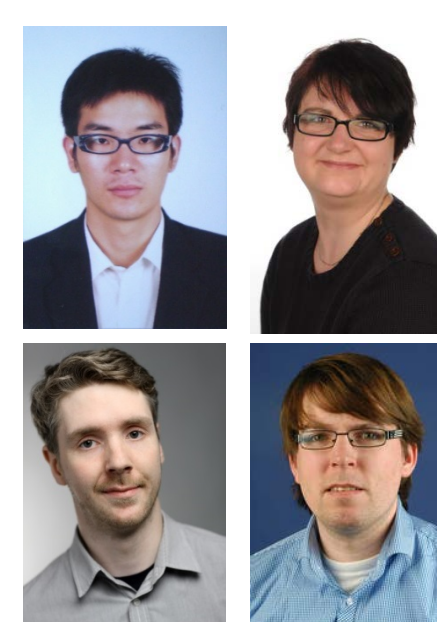
Slag properties

Kerstin Donecke - Thermochemical modelling of slag

Andre Horstenkamp - Surface tension of slag systems

Guixuan Wu - Viscosity of liquid phases in oxide systems

Soren Seebold - Flow properties of partly crystallized slag



Gasification modelling

Michael Alberti - Modeling of gas radiative properties

David Boning - Process simulation of EFG processes

Georg Eckel - Large Eddy Simulation of Reacting Multi-phase Flows

