

# OF THERMODYNAMICS AND COMBUSTION



# Rotary Kilns

- ► Lateral and axial movement
- ► Heat transfers flame spread
- ▶ Residence time

### more...

#### Shaft Kilns

- ▶ Decomposition kinetics of various limestones
- ► Measure physical properties
- ► Multidimensional flow calculations using CFD

#### more...

## **Tunnel Kilns**

- ► Energetic optimization
- ► Multidimensional flow calculations using CFD

## more...

## Roller Kilns

- ► Contact heat transfer roll-good
- ► Role impact on good-warming
- ► Lance assembly

### more...

## **Combustion Processes**

► Optimization of combustion chambers (simulation of flow, concentration and temperature fields with combustion reaction)

#### more...

Measurement of thermophysical Material Properties

- ► Thermal conductivity
- ► Spec. heat capacity
- ▶ Density and thermal expansion-reaction, and temperatures

more...
Intensive Cooling

more...

**Drying Processes** 

more...

# Interested?

Are you interested in our services? Then simply contact > Prof. Specht directly.

## Research Focuses

- ▶ Dynamic Simulation of Heat Treatment Processes
- ► Intensive Cooling of Metals with Hardness and continuous casting Processes
- ► Cumulative Energy and CO2 Balances
- ► Heat Transfer Processes
- ► Influence of Surface Roughness on secondary Cooling in continuous Casting of non-ferrous Metals
- ► Analysis and Modeling of Heat Transfer in Rotary Pipes with Lifting Blades