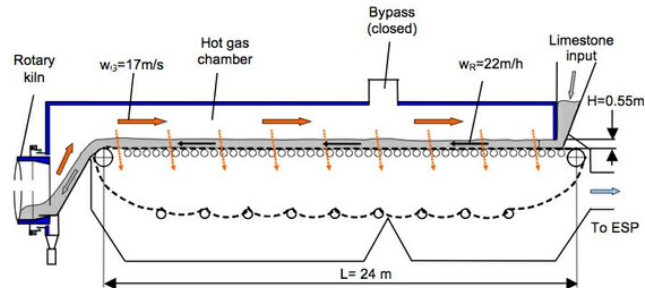


## Simulation of Heating and Cooling of granular Materials on Grates

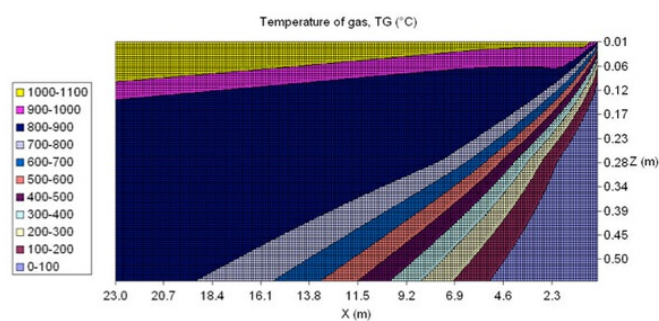
The heating and cooling of bulk materials on grates is simulated in two dimensions. It is considered that the temperature dependency of physical properties of the pressure loss coefficient in the bed is not the same, and thus changes the flow along the path.

As examples, the heating of limestone and dolomite (the part deacidification is calculated) and the cooling of cement clinker should be called.

These factors are examined: stainless length, grate speed, bed height, particle size distributions of the flow, etc.



construction Lepol grate



Temperature field in the limestone on the Lepol grate

**Dr.-Ing. Chuan Cheng:** „Thermal Process Simulation of reactive particles on moving grates“ (pdf)

([ltv\\_media/Downloads/Forschung/Cheng-p-480.pdf](#)) - Promotionskolloquium am 22.05.2007.

## Tunnel Kilns

- ▶ Roller Kilns
- ▶ Combustion Processes
- ▶ Measurement of thermophysical Material Properties
- ▶ Intensive Cooling
- ▶ Drying Processes