

# Porosimeter ThermoQuest Pascal 140

Technische Universität Braunschweig | Institute for Chemical and Thermal Process Engineering  
ictv@tu-braunschweig.de | Telephone +49 (0) 531 391-2781

## Principal of measurement

- Investigating the porous structure of solid samples in a quantitative way.
- Preparing samples for analysis and carrying out low pressure porosimetry from vacuum up to 400 KPa, measuring large pores and particles.
- Mercury intrusion: Measurement of the mercury that penetrates into the pores and measurement of the pressure during the intrusion.
- Due to the high pressure only materials with a strong structure remain intact, for example ceramics and sintered materials.

## Possibilities

- Determination of the pore size/volume, the bulk density, the porosity (in percentage), the specific surface and the medium pore radius
- Pore compression (i.e.: rubber, polymer)
- Particle size

## Equipment

- Various dilatometers
- Mercury preparation container
- Automatic sample degassing and digital vacuum gauge to control sample degassing
- Automatic mercury filling
- Special kit for ultra-macropore analysis



## Range of measurement

- Pressure: 0,01 – 4000 bar
- Pore radius: 0,0001 – 10 mm
- Amount of sample: depends on the expected pore volume (mg-range)

## Duration of experiment

- Varies between 20 and 180 minutes



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