PARTICLE CHARACTERIZATION
POWDER ANALYSIS
PORE DETERMINATION

HIGHEST THROUGHPUT ANALYSIS
BY UP TO FOUR INDEPENDENT MEASURING-STATIONS

HIGH DEGREE OF AUTOMATIZATION

FAST PHYSIOSORPTION RESULTS

FAST PHYSIOSORPTION ANALYSIS
BY SUPERIOR INSTRUMENT DESIGN

Characterization of particles · powders · pores
info@3P-instruments.com
www.3P-instruments.com
**Automatic Sorption Analysis of up to four samples**

The most commonly used and most reliable method for measuring isotherms is the static volumetric method of gas adsorption. The 3P meso series follows the principle of independent analysis ports for determination of meso and macropores from 2 up to more than a few 100 nm. One, two and four port systems are available to meet optimal client demands. Designed for the field of quality assurance and/or production control, these analyzers provide an independent dosing manifold equipped with 1000 Torr transducers for each measurement port. Each of the measurement stations include the capability to degas the sample in-situ (up to 400 °C), this principle avoids sample contamination during sample transfer from separate degassers to the analysis port without making any further precautions. However, for materials where this effect are insignificant, external degassers are available as well.

### 3P meso series

**- High-throughput analysis**

**- High degree of automatization**

**- Fast physisorption**

- One, two or four independent stations!
- In-situ degassing standard, external degassing optional!
- Software shows kinetic real-time plot together with physisorption isotherm. You will never have under-equilibrated isotherm data without noticing!

### Key Benefits

As each analysis port acts completely independent, there is zero time loss, independent if one, two or four analyses are started at the same time or if another measurement is started while others are already running.

### Specification

<table>
<thead>
<tr>
<th></th>
<th>3P meso 112</th>
<th>3P meso 222</th>
<th>3P meso 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring range</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surface Area</td>
<td>≥ 0.0005 m²/g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pore Size</td>
<td>2 - 500 nm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pore Volume</td>
<td>≥ 0.0001 cc/g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysis ports</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Transducers</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Degassing ports</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>p/p₀ range</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adsorptives</td>
<td>N₂, CO₂, Ar, Kr, H₂, O₂, CO, NH₃, CH₄</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Applications

- Catalysts
- Glas & Ceramics
- Graphite & Carbon blacks
- Building materials
- Soils & Sediments
- Pharmaceuticals

### Key Features

- Automatic sorption analysis of up to four samples
- High-throughput analysis
- High degree of automatization
- Fast physisorption

Contact:
info@3P-instruments.com
www.3P-instruments.com
Tel. +49 8134 9324 0