

## APPLICATIONS

- Aerosol research
- Indoor and outdoor particle measurement
- Workplace measurement
- Test of filters, air cleaners
- Cloud research
- Emission and immission measurement
- Inhalation measurement
- Calibration



## OUR CORE COMPETENCIES

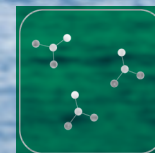
- Filter test systems
- Aerosol spectrometer systems
- Fine dust monitoring systems
- Nanoparticle measurement systems
- Particle generation systems
- Dilution systems
- Clean room particle technology
- Special developments
- Calibration systems
- Services
- Training courses and seminars

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# NANOPARTICLE MEASURING DEVICES



# OVERVIEW

## UF-CPC SYSTEM

condensation particle counter

### UF-CPC 50

$C_{N\text{ Max}}$ :  $10^4$  particles/cm<sup>3</sup> (single count mode)\*<sup>1</sup>  
 $d_p$ : 4–5,000 nm



### UF-CPC 100

$C_{N\text{ Max}}$ :  $10^5$  particles/cm<sup>3</sup> (single count mode)\*<sup>1</sup>  
 $d_p$ : 4–5,000 nm

### UF-CPC 200

$C_{N\text{ Max}}$ :  $2 \cdot 10^6$  particles/cm<sup>3</sup> (single count mode)\*<sup>1</sup>  
 $d_p$ : 4–5,000 nm

## ENVI-CPC SYSTEM

condensation particle counter for particle concentration measurement according to EN 16976:2024

$d_p$ : 4–5,000 nm  
 $D_{50} \approx 10$  nm



### ENVI-CPC 50

$C_{N\text{ Max}}$ :  $10^4$  particles/cm<sup>3</sup> (single count mode)\*<sup>1</sup>

### ENVI-CPC 100

$C_{N\text{ Max}}$ :  $10^5$  particles/cm<sup>3</sup> (single count mode)\*<sup>1</sup>

### ENVI-CPC 200

$C_{N\text{ Max}}$ :  $2 \cdot 10^6$  particles/cm<sup>3</sup> (single count mode)\*<sup>1</sup>

\*<sup>1</sup> $C_{N\text{ Max}}$ :  $10^7$  particles/cm<sup>3</sup> (nephelometric mode)

## DEMC SYSTEM

differential electrical mobility classifier with short/long column according to ISO 15900:2020

### DEMC 1000

$d_p$ : 4–600 nm

### DEMC 2000

$d_p$ : 8–1,400 nm

### DEMC ---- X

integrated soft X-ray neutralizer



## U-SMPS SYSTEM

universal scanning mobility particle sizer, different configuration possible

### U-SMPS 1050/1100/1200

$d_p$ : 4–440 nm

### U-SMPS 1700\*<sup>2</sup>

$d_p$ : 2–440 nm



### U-SMPS 2050\*<sup>3</sup>/2100\*<sup>3</sup>/2200

$d_p$ : 8–1,200 nm

### U-SMPS 2700\*<sup>2</sup>

$d_p$ : 6–1,200 nm

### U-SMPS ---- X

integrated soft X-ray neutralizer

\*<sup>2</sup> only for high concentrations (min. 1,000 particles/cm<sup>3</sup>/channel)

\*<sup>3</sup> with ENVI-CPC System compliant to CEN/TS 17434:2020

## U-RANGE 2000

continuous measurement of particles  
 U-SMPS SYSTEM in combination with FIDAS<sup>®</sup> 200 (also possible with PROMO<sup>®</sup> LED 2000)

$d_p$ : 8–40,000 nm

## NEUTRALIZER

### KR-85-370

radioactive source



### XRC 049

X-ray source



## CHARME<sup>®</sup>

reference aerosol electrometer

$C_{N\text{ Max}}$ :  $1.6 \cdot 10^7$  particles/cm<sup>3</sup>  
 $d_p$ : >2 nm



## AQ GUARD SMART 2000

air quality analyzer for monitoring nanoparticles

$C_{N\text{ Max}}$ :  $10^8$  particles/cm<sup>3</sup>  
 $d_p$ : > 10 nm

