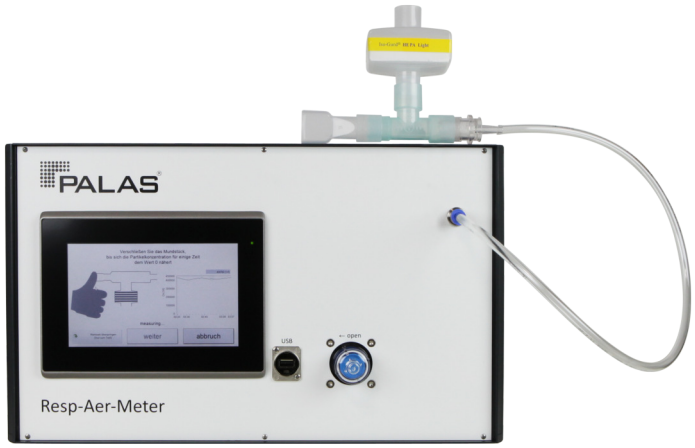
RESP-AER-METER SCIEN-TIFIC



Besides the detection of a potential superspreader, the Resp-Aer-Meter Scientific offers access to a wide range of other measurement data, such as number of particles, size and size distribution, time course, measurement times, and much more. In addition, many parameters, such as the measurement duration or limit values can be set individually.

工作原理

WIDE RANGE OF ADDITIONAL INFORMATION AND DATA AND CAN BE USED FOR SCIENTIFIC APPLICATIONS

The Breath Viewer post-processing tool makes it easy to perform a comprehensive statistical analysis of the data from several different measurements. It displays them graphically and allows filtering and sorting as well as subsequent changes to certain evaluation parameters. This also enables adaptations to new variants and diseases.

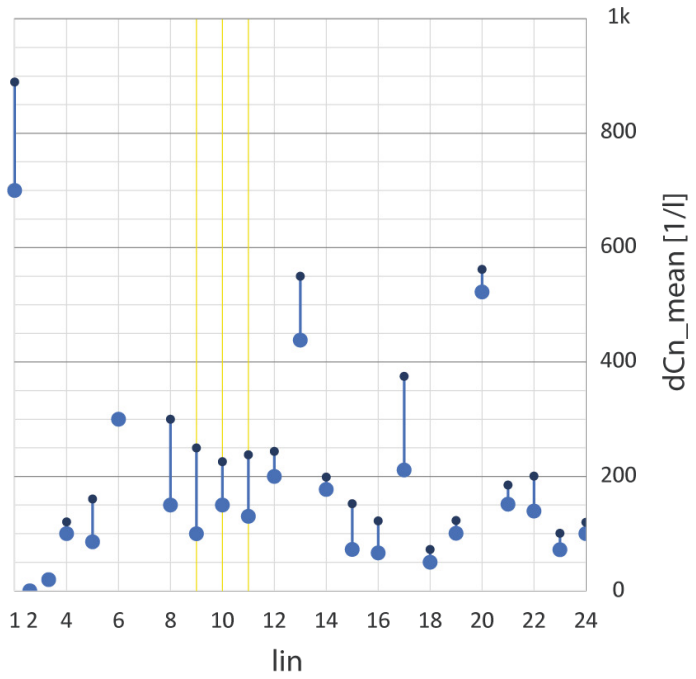


Fig. 1: Comparison of different measurements

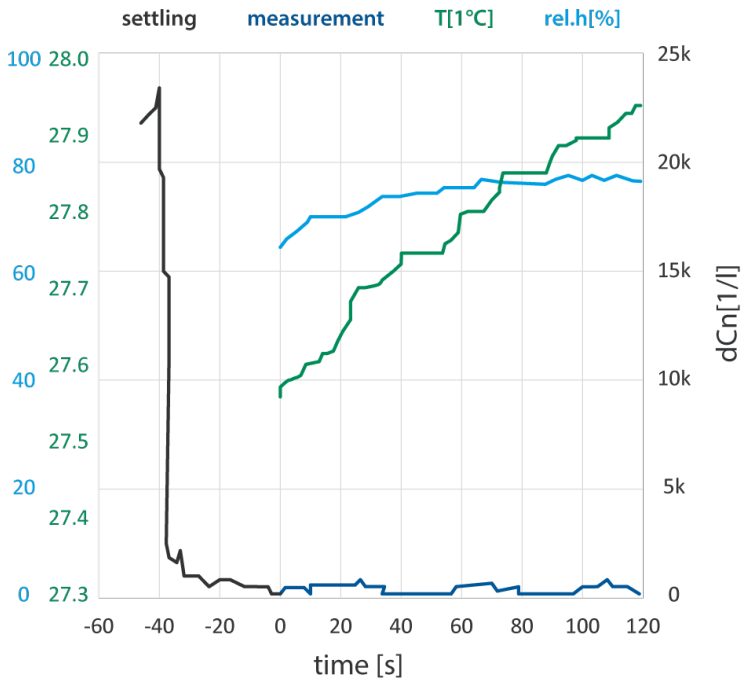


Fig. 2: Time representation of a measured value

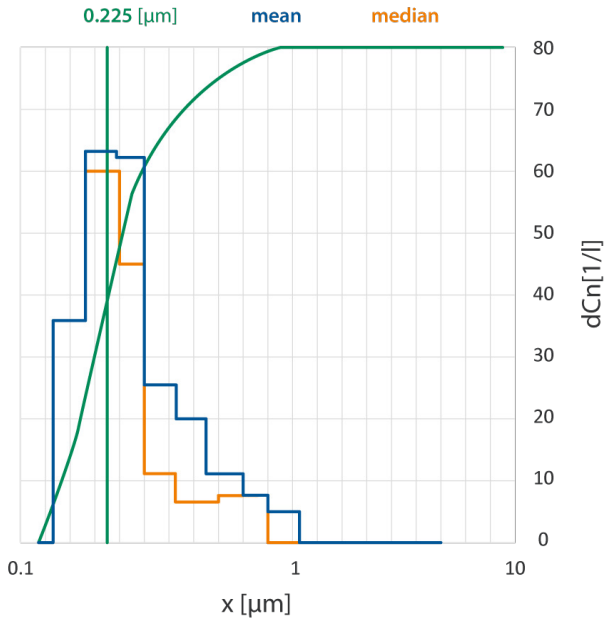


Fig. 3: Size distributions

优势

- So-called ″superemitters″ can be identified in 30s thanks to a high number of particles
- Fast differentiation between infectious and less infectious Covid-19 carriers
- Measurement of the aerosol concentration and aerosol size in exhaled air
- Detection of particles from 145 nm to 10 μm
- Highest resolution, especially in the virus size range from approx. 145 nm to 1 μm
- Immediate evaluation and documentation of the measurement result

技术数据

测量原理	Optical light-scattering
测量范围(数量浓度)	0 – 20,000 particles/cm³
测量范围(粒径)	0.15 – 10 μm
体积流量	9.5 l/min
User interface	Touchscreen, 800 • 480 pixel, 7″ (17.78 cm)
Data acquisition	Digital, 20 MHz processor, 256 raw data channels
Power consumption	Approx. 200 W

应用领域

- Medical-scientific research, to answer questions such as
  - Do infectious respiratory diseases differ by exhaled particle size distribution?
  - Is an increased particle concentration in the breath due to a specific particle size range?
  - How do disease variations or personal characteristics (age, BMI, previous diseases...) influence the outcome?

Mehr Informationen:
https://www.palas.de/zh/product/Resp-Aer-Meter Scientific