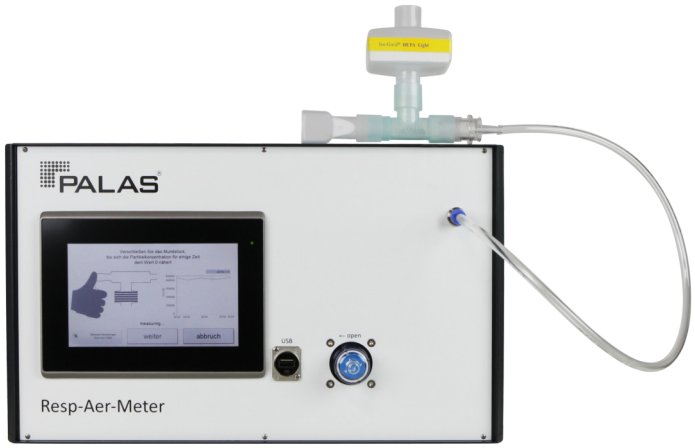
RESP-AER-METER SCIEN-TIFIC



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.

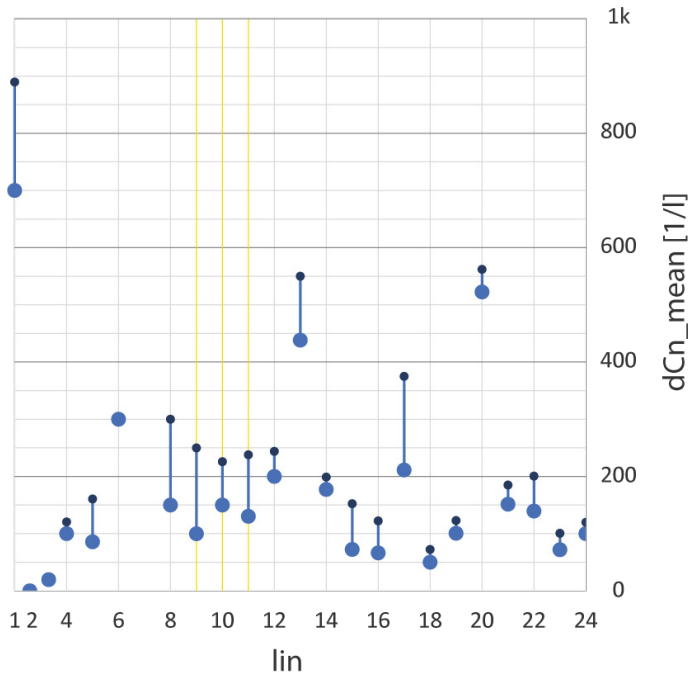


Fig. 1: Comparison of different measurements

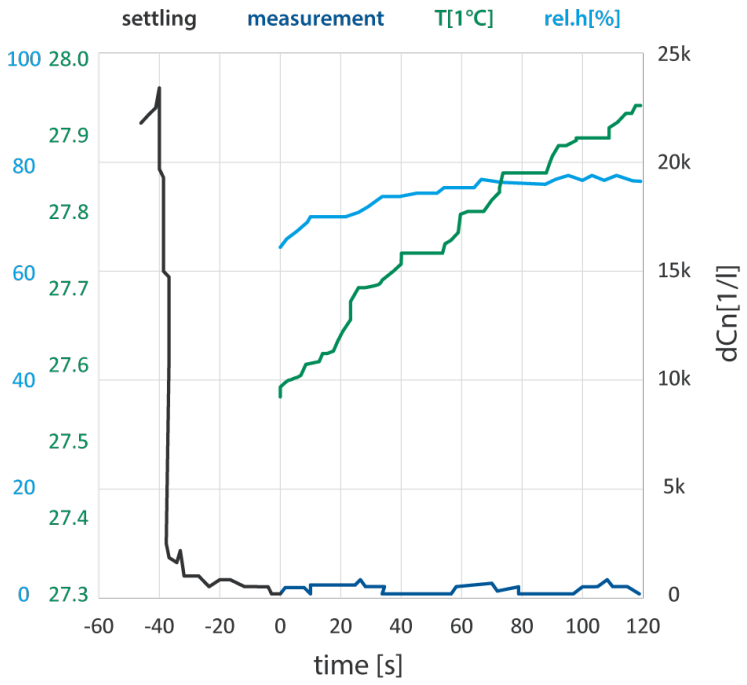


Fig. 2: Time representation of a measured value

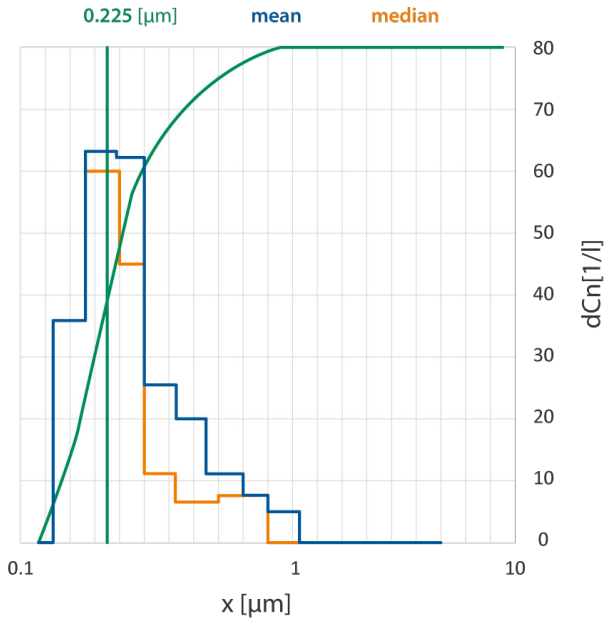


Fig. 3: Size distributions

优势

- 所谓"超级传播者"可通过检测其呼出气体中的高浓度颗粒物在30 秒内被识别
- 该技术可快速区分高传染性与低传染性的新冠病毒携带者
- 可对呼出空气中的气溶胶浓度与粒径进行测量
- 检测粒径范围覆盖145 纳米至10 微米
- 尤其在约145 纳米至1 微米的病毒特征粒径范围内具备超高分辨率
- 测量结果可立即评估并生成记录文档

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