ISO 21501-1:2025-12 (E)

Determination of particle size distribution - Single particle light interaction methods - Part 1: Light scattering aerosol spectrometer

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Requirements 3
4.1 Introduction 3
4.2 Counting efficiency 3
4.3 Size resolution 4
4.4 Sizing accuracy 4
4.5 Sampling flow rate 5
4.6 Effective flow rate through the sensing volume 5
4.7 Maximum particle number concentration 5

5 Test method 5
5.1 Size calibration 5
5.2 Effective flow rate through the sensing volume 6
5.3 Maximum particle number concentration 7
5.4 Size resolution 8
5.5 Counting efficiency 9
5.5.1 Parallel comparison method 9
5.5.2 Generator method 10
5.6 Sampling flow rate 11

Annex A (informative) Principle of the instruments 12

Annex B (informative) Particle size standards 19

Annex C (informative) Effects of LSAS parameters 22

Annex D (informative) Representative sampling 23

Annex E (informative)ExampleofanLSAScalibrationwithDEMC-classifiedPSLparticles 25

Annex F (informative)Countingefficiency 27

Bibliography 35