

ISO 28439:2011-04 (E)

Workplace atmospheres - Characterization of ultrafine aerosols/nanoaerosols - Determination of the size distribution and number concentration using differential electrical mobility analysing systems

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Symbols and abbreviated terms	2
4.1	Symbols	2
4.2	Abbreviated terms	3
5	Principle	3
6	Equipment	4
6.1	General	4
6.2	Sampling line	4
6.3	Pre-separator	5
6.4	Particle charge conditioner	5
6.5	DEMC	5
6.6	Aerosol particle detector	5
7	Measurement strategy	6
8	Measuring procedure	6
8.1	Preparation	6
8.2	Sampling	7
9	Presentation and evaluation of data	7
10	Check of DMAS performance	8
10.1	Check on particle classification	8
10.2	Check on particle number-counting efficiency	8
11	Problems and errors	8
11.1	CPC (CNC) counting efficiency	8
11.2	Particles with multiple charges	9
11.3	Sampling losses	9
11.4	Uncertainties	10
11.5	Overloading	11
11.6	Sampling of fibres	11
11.7	Humidity	11
11.8	Maintenance	11
Annex A (informative) Methods for determining exposure		12
Annex B (informative) List of manufacturers (non-comprehensive)		13
Bibliography		14