

ISO 13099-3:2014-07 (E)

Colloidal systems - Methods for zeta potential determination - Part 3: Acoustic methods

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms, definitions and symbols	1
3.1	Electric double layer (EDL)	1
3.2	Electrokinetic phenomena	3
3.3	Electroacoustic phenomena	4
4	Symbols	6
5	Principle	7
6	Zeta potential probe design elements	8
7	Determination of the dynamic electrophoretic mobility	8
7.1	Subtracting background electroacoustic signal generated by ions	9
8	Calculation of zeta potential	10
8.1	General	10
8.2	Isolated double layers	10
8.3	Overlapped double layers	13
9	Operational procedures	13
9.1	Requirements	13
9.2	Verification	14
9.3	Sources of measurement error	15
Annex A (informative) Electroacoustics: high frequency electrokinetics		16
Annex B (informative) Verification of electroacoustic theories		17
Bibliography		20