



ISO 13099-2

**Colloidal systems — Methods for
zeta-potential determination —**

Part 2:
Optical methods

*Systèmes colloïdaux — Méthodes de détermination du
potentiel zêta —*

Partie 2: Méthodes optiques

**Second edition
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This is a preview of ISO 13099-2:2025. Click [here](#) to purchase the full version from the ANSI store.



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This document was prepared by Technical Committee ISO/TC 24, *Particle characterization including sieving*, Subcommittee SC 4, *Particle characterization*.

This second edition cancels and replaces the first edition (ISO 13099-2:2012), which has been technically revised.

The main changes are as follows:

- addition of new terms and definitions;
- revision of [Figure 3](#), illustrating instrument configuration;
- removal of section on cross-beam optics;
- revision of the description of phase analysis light scattering (PALS);
- addition of information on cell constant.

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Zeta-potential is a parameter that can be used to predict the long-term stability of suspensions and emulsions and to study surface morphology and adsorption on particles and other surfaces in contact with a liquid. Zeta-potential is not a directly measurable parameter. It can be determined using appropriate theoretical models from experimentally determined parameters, such as electrophoretic mobility.

Optical methods, especially electrophoretic light scattering, have been widely used to determine electrophoretic mobility of particles or macromolecules in suspension or in solution. The purpose of this document is to provide methods for measuring electrophoretic mobility using optical means and for calculating zeta-potential.