MASS PHOTOMETRY – A REVOLUTIONARY APPROACH TO BIOANALYTICS

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Mass photometry is a novel bioanalytical technology that provides insights into the mass distribution of biomolecules in their native state within minutes without the need for labelling, surface immobilization or big sample quantities. Mass photometry is based on interferometric scattering microscopy, measuring single molecules thanks to an unprecedented level of sensitivity. Its ease of use makes mass photometry the perfect tool for rapid assessments of sample purity and homogeneity, structural integrity or macromolecular interactions across biomolecules ranging from differently sized proteins to DNA and even small viruses, such as AAVs.

In this talk we will show how mass photometry can answer a wide range of questions in the structural biology and biochemistry fields and how it can be integrated with downstream structural biology approaches like CryoEM and crystallography.

The principle of mass photometry

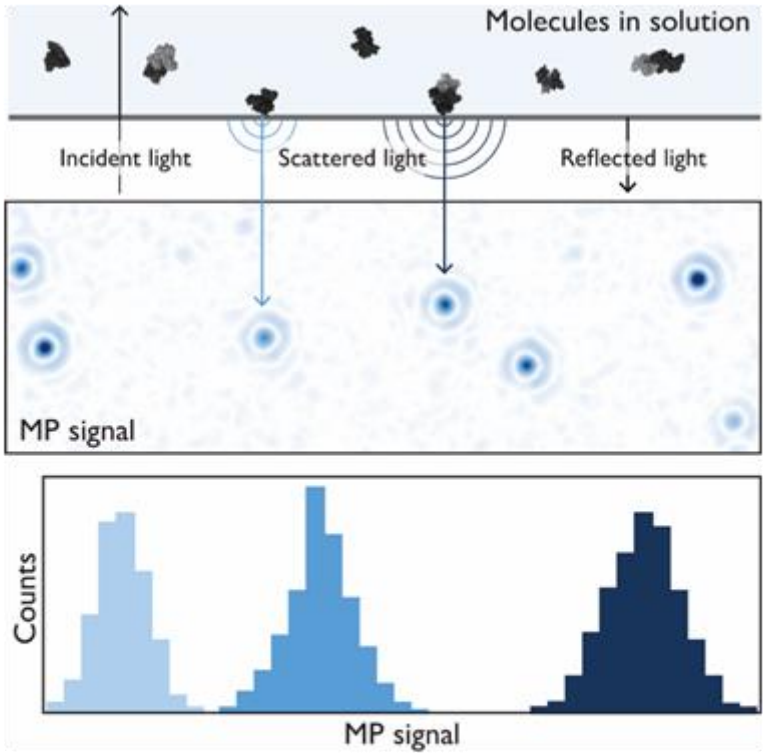

Fig. 1 The principle of mass photometry. The light scattered by a molecule that has landed on a measurement surface interferes with light reflected by that surface. The interference signal scales linearly with the molecule's mass.