



Sunday, February 16
10:30 AM – 12:00 PM
Room 33C
Wyatt Technology

Recent Advances in Light Scattering and Related Techniques

Historically light scattering detection has been seen as a tool to assess molecular weight and aggregation. Throughout its existence the utility of this method to assess additional properties of proteins has expanded significantly. Today it's uniquely positioned to give information about how aggregates form, properties of conjugates such as determination of the mass of pegylation or many other conjugates relative to the mass of the protein, protein conformation and many others. One of the properties of light scattering that differentiate it from other techniques that give similar data is the ability for the experiments to be done in solution. With no labeling, fixing of detection agents to solid surfaces or drying of the material to be analyzed you get a real picture of the properties in a given solution.

In this presentation we will discuss the recent advances in HPLC, field flow fractionation (FFF) and composition gradient (CG) coupled with multi-angle light scattering (MALS). The use of HPLC has expanded beyond size exclusion chromatography to include ion-exchange, reversed phase and hydrophobic interaction chromatography that enables the assessment of other properties and various types of molecules such as antibody drug conjugates. FFF-MALS is a gentle separation technique that allows for the separation of a wide range of particle sizes in a single channel with low shear. It is done entirely in a liquid stream and is well suited to utilizing the same separation buffer in which the molecules have been formulated, eliminating the worry that the elution buffer may be affecting the molecule in some way. With CG-MALS the user is able to study protein interaction with other molecules of interest again all in solution and label free.

We invite you to join us in this discussion of the newest uses to discover how they might apply to the next breakthrough in your research.

Speaker

Kevin McCowen, Regional Manager, Wyatt Technology