BIRCK Nanotechnology Center

PURDUE UNIVERSITY Discovery Park

Size & Zeta Potential Characterization by Light Scattering

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Presentation: BRK Rm 1001 @ 10:00 AM
Demonstration: BRK RM 2037 @ 1:30 PM

Light scattering is a useful tool in the characterization of bio and nano materials. It is a non-invasive method for understanding a broad range of application issues. Specifically the Zetasizer Nano is a robust instrument with the capability of carrying out Dynamic Light Scattering (DLS), Electrophoretic Light Scattering (ELS) and providing Molecular Weight (MW) results.
The objectives of this talk are to review DLS, ELS and provide a background in the MW capabilities available. I will introduce the utility of light scattering measurements, provide useful tips for analyzing DLS measurement results and discuss example applications. ELS measurements allow for the calculation of zeta potential. Zeta potential is both a function of the particle surface and the dispersant and is therefore a predictor of the interfacial behavior of multicomponent product formulations. Therefore, zeta potential is often used to predict dispersion stability. This lecture will review zeta potential measurements and provide application examples.

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