"Workshop on Light Scattering Applications: *Superior Particle Size, Zeta Potential and New Innovations with Brookhaven Instruments*"

7/11/2016 – Auditório Abraão de Moraes / Instituto de Física da USP

Organization:
Prof. Cristiano Luis Pinto de Oliveira (IFUSP)
Danielle Cristina da Silva (Instrutécnica)

Registration: Contact Mrs. Danielle C. Silva (danielle@instrutecnica.com.br) providing your full name, university, Institute and Department. The participation on the workshop is free of charge.

Superior Particle Size, Zeta Potential and New Innovations with Brookhaven Instruments

Eric Farrell, Brookhaven Instruments Corporation

ABSTRACT: Brookhaven Instruments offers a wide array of solutions for our particle, protein and polymer characterization needs. The NanoBrook Omni, with THREE angles particle sizing, TurboCorr correlator and zeta potential by TRUE Phase Analysis (PALS) is presented as a superior solution for fast, routine, sub-micron measurements of size, zeta potential, surface charge and molecular weight. In this workshop, the basic theory, working principles and applications of Dynamic Light Scattering (DLS for Particle Sizing), Electrophoretic & Phase Analysis Light Scattering (ELS & PALS for Zeta Potential Measurement), and Static Light Scattering (SLS for Molecular Weight Determinations) will be discussed. For more advanced characterization needs, Brookhaven offers solutions for advanced static light scattering, high resolution particle sizing, and more.

Schedule:

8:55 : Welcome

9:00 – 10:30:

- Principles of dynamic light scattering and zeta potential.
- Superior characterization of nanoparticles, proteins, polymers, minerals and more with the NanoBrook Omni
- Determining Stability Using Zeta Potential and Light Scattering
- Molecular Weight analysis

10:30 – 10:45: Coffee Break

10:45 – 12:15:

- Complex fluid characterization with Microrheology
- Characterization of micron-sized particles with the MicroBrook 2000
- Multi-angle static light scattering for molecular weight, radius of gyration, and more.
- Disc centrifugation for high resolution size distributions
- Protein, Bio, pharma and Polymer applications

12:15 – 14:00: Lunch

14:00 – 16:00:

- Demonstration of NanoBrook Omni and accessories
- Live sample analysis

BIBLIOGRAPHY OF SPEAKER:

Eric Farrell is the International Sales Engineer at Brookhaven Instruments. He received his Bachelor's degree in Biochemistry in 2005 at Union College, in Schenectady, NY USA. Eric joined Brookhaven Instruments in August of 2008, as Laboratory Manager, where he analyzed protein/polymer samples and colloidal suspensions for prospective customers using GPC/SEC, dynamic light scattering, static light scattering, and disc centrifugation. In addition, Eric performed method development for customers' specific samples for use with Brookhaven's instrumentation. In January of 2013, Eric moved into instrument sales, where his vast application and laboratory experience helped provide customers with the optimal instrumentation for their application. During Eric's tenure at Brookhaven Instruments, he has traveled internationally, providing on-site installation of training of Brookhaven's equipment as well as provided international sales support to both customers and distributors.