

PHOTON MACHINES HANDS-ON LIBS TRAINING

MARCH 2-3, 2011



Harness the power of LIBS analysis and see what you've been missing!

Come visit the Pacific Northwest for a **two-day, hands-on seminar** in Greater Seattle on Laser-Induced Breakdown Spectroscopy, a rapid and preparation-free elemental analysis method that yields quantitative analysis for many sample types. Interact with experts Dr. Steven Buckley and Dr. Gregg Lithgow, who will intersperse classroom learning with hands-on experience on Photon Machines' commercial Insight™ and Infinity LIBS systems. **Bring your samples to the class for real-time analysis!**

The **benefits of LIBS** that you will learn during this course include:

- The ability to measure elements from across the periodic table, including light elements
- Minimal sample preparation compared with other techniques
- Qualitative classification and quantitative elemental concentration measurement
- Micro- to macro analysis with analysis spot sizes from 20 microns to 2 mm

Agenda (9 am – 5:30 pm each day)

March 2: Introduction to LIBS, Hands-on Session #1 (Learning the Infinity), Choosing a Laser for LIBS, Choosing a Spectrometer for LIBS, Hands-on Session #2 (Learning the Insight™), Peak identification.

March 3: Calibrations for LIBS – standard and chemometric, Pirouette™ for chemometrics, Hands-on Session #3 – free play with samples, make a calibration! Wrap-up and questions.

Meet Photon Machines' Hands-on LIBS Training Instructors:

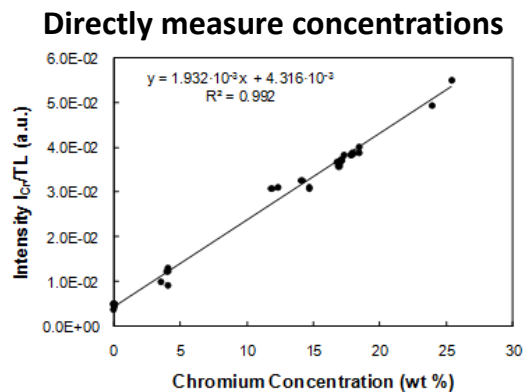
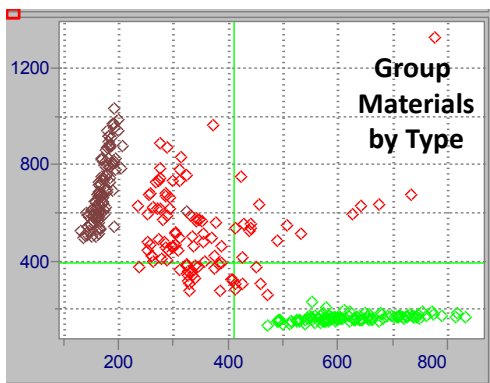


Dr. Steven Buckley co-founded Photon Machines in 2006, and has been working in LIBS since 1998. The challenging places that Steve has applied LIBS include the smokestack of an incinerator and the inside of a glass furnace. He was a tenured Associate Professor of Mechanical Engineering and Nanoengineering at the University of California. Steve was also faculty at the Univ. of Maryland and staff at Sandia Labs. He has written a book chapter and co-authored numerous papers on LIBS. When he is not making plasmas, Steve loves to hike with his family.

Dr. Gregg Lithgow joined Photon Machines from his staff position at NRC Canada, where among other things he worked on potentially the smelliest application of LIBS, measurements of heavy oil and tar. Gregg's Ph.D. thesis was on the application of LIBS to measurement of single nanoparticles. He is an avid climber, skier, and outdoorsman.



This class will provide a full appreciation of the power of LIBS analysis and how this new, rapid analysis method can benefit your business, making you more productive, and even make your job easier. You can avoid difficult preparations and still obtain accurate elemental analysis with LIBS!



The course fee of \$1150 includes two days of **classes and demonstrations**, lunches, and a group dinner on the second evening of the class. Hotel accommodations are available at reasonable, negotiated rates, with shuttle service to Photon. Topics include analysis of different sample types, hardware choices such as laser energy, laser wavelength, and spectrometer choice. Methods of qualitative and quantitative analysis, including chemometrics, using Photon Machines' software will be treated in detail. We will also cover use of third-party chemometric software for LIBS analysis.

CALL 425-296-6400 AND PRESS 2 TO MAKE YOUR RESERVATION NOW!