



MINNESOTA
CHROMATOGRAPHY FORUM

It's time again for the MCF's three day workshop '*Introduction to High Performance Liquid Chromatography.*' This workshop will provide introductory training in HPLC and its application to practical industrial and laboratory analytical problems. A full day of hands-on training is included with instrumentation provided by local vendors.

Instructors: Dr. David Johnson (3M) and Dr. Larry Felice (Surmodics)
Date/Time: November 5th-7th, 2013; 8:00am ~ 4:30pm
Location: University of Minnesota, Saint Paul Campus
Earle Brown Continuing Education Center – **Room 156**
1890 Buford Avenue
Tuition: \$750 per person

To register, visit: http://minnchrom.3dcartstores.com/Introduction-to-HPLC-2013_p_22.html

Class size is limited, please register by October 31st, 2013.

For registration questions, contact Jenn Rosen at jenn@rosetreeevents.com

For course content questions, contact Dr. David Johnson at ddjohnson@mmm.com

Lunch, as well as refreshments for morning and afternoon breaks, is provided each day. Please note any dietary restrictions when you register. Parking is available in nearby pay lots (Lots S-104 and S-108).

Visit <http://www1.umn.edu/twincities/maps/CECC/> for more information about the location, available parking and to map directions from your location.

COURSE OUTLINE

Day One

- I. Introduction
- II. Chromatographic Theory
- III. Column Chemistry
 - A. Background
 - B. Instrumentation
 - C. Modes of Chromatography
 - D. Solvents
 - E. Column Misc.
- IV. System Concerns (Practical)
 - A. Column Considerations and Care
 - B. Solvent Selection and Use
 - C. Plumbing/Fittings
 - D. Detectors
 - E. Sample Concerns
 - F. Injection Misc.

Day Two

Laboratory Exercises

Day Three

- I. Post-Lab Discussion
- II. Sample Prep
- III. Signal Processing
- IV. Methods Development
- V. Maintenance
- VI. Troubleshooting
- VII. Column Survey
 - A. Traditional Si-based Bonded Phases
 - B. Non-traditional Si-based Bonded Phases
 - C. Non-Si-based Columns

About the Instructors:

Dr. Larry Felice received his B.A. in chemistry from Queens College, New York, and his Ph.D. in analytical chemistry from Purdue University. He also completed a fellowship in environmental toxicology at Vanderbilt University. Dr. Felice began his career as a research scientist in the Environmental Chemistry Section at Batelle, N.W. in Richland, Washington. In 1984 he accepted the position of Assistant Professor at the University of Minnesota in the Department of Veterinary Diagnostic Medicine, and in 1990 received a promotion to Associate Professor of Analytical Toxicology. In these positions, he performed grant-funded research on veterinary toxicology, taught professional and graduate courses in toxicology, and advised graduate students. From 1995 to 2004, Dr. Felice directed an R&D group at Medtox Laboratories, responsible for the development of assays for the measurement of drugs in biological samples using HPLC, GC, GC/MS and LC/MS/MS. Currently, Dr. Felice is a Senior Manager at Surmodics, where he is involved in the development of polymer coatings for medical device applications and polymer based drug delivery systems. Dr. Felice is the recipient of the 2008 Palmer Award, for his contributions to chromatography and the Minnesota Chromatography Forum.

Dr. David Johnson received his B.S. in chemistry from the University of Minnesota in Minneapolis, and his Ph.D. in analytical chemistry from the University of Arizona in Tucson. After completion of his schooling, he began his career in industry with 3M. He worked in the 3M Corporate Research Laboratory Separations Group developing methods and doing general problem solving with various separation technologies including LC, GC, CE, and SPE. In addition, he performed research into novel sorbent systems and applications for SPE. After managing various groups in 3M's Corporate Analytical and Corporate Process Laboratories, he returned to the bench where he is now group leader of the Competitive and Litigation Analysis group in 3M's Corporate Research Analytical lab. This group's mission is to protect 3M's intellectual property interests through scientific inquiry. In addition to his work at 3M, Dr. Johnson has served as an adjunct professor with the St. Paul Technical College, and an instructor in 3M's STEP program - a science encouragement outreach program for St. Paul high school students.