

Introduction to High Pressure Liquid Chromatography

October 14-16, 2003

Instructors: Dr. David Johnson (3M) and Dr. Larry Felice (Medtox)
Date/Time: October 14-16, 2003; 8:00 am ~ 3:30 pm
Location: University of Minnesota, St. Paul Campus
Earle Brown Continuing Education Center
1890 Buford Avenue, Room 32
Course Fee: \$650
Vendors: To Be Announced (refer to Web-site! www.minnchrom.org)

Course Outline:

<i>Day One</i>		<i>Day Two</i>	
I.	Introduction	I.	Hands On Laboratory Exercises
II.	Chromatographic Theory		
III.	Column Chemistry		<i>Day Three</i>
	A. Background	I.	Post-Lab Discussion
	B. Instrumentation	II.	Sample Prep
	C. Modes of Chromatography	III.	Signal Processing
	D. Solvents	IV.	Methods Development
	E. Column Misc.	V.	Maintenance
IV.	System Concerns (Practical)	VI.	Troubleshooting
	A. Column Considerations and Care	VII.	Column Survey
	B. Solvent Selection and Use	A.	Traditional Si-based Bonded Phases
	C. Plumbing/Fittings	B.	Non-traditional Si-based Bonded Phases
	D. Detectors	C.	Non-Si-based Columns
	E. Sample Concerns		
	F. Injection Misc.		

It's time again for the MCF's three day workshop in Beginning Liquid Chromatography! This workshop is to provide introductory training in the applications of HPLC to practical industry and laboratory analytical problems. A full day of "Hands On" training with instrumentation from local vendors is included!

Meet the Instructors...

Dr. David Johnson 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. He began his career in industry at the 3M Corporation in October 1992. His first 5 years he worked in the 3M Corporate Laboratory's Separations group developing methods and doing general problem solving applying a variety of separation technologies including LC, GC, CE, and SPE. Additionally, he performed research into novel sorbent systems and applications for SPE. Subsequently, he joined the Intellectual Properties and Competitive Analysis group whose mission is to protect 3M's intellectual property interests through scientific inquiry. He is now a Technical Manager in 3M's Corporate Analytical laboratory with supervisory responsibilities over the separations, mass spec, wet chemical analysis and microbiology areas. In addition to his work at 3M, Dr. Johnson is also an adjunct instructor with the St. Paul Technical College, an instructor in 3M's STEP program - a science encouragement outreach program for St. Paul high school students and a 3M Visiting Wizard.

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. In 1995 Dr. Felice joined Medtox, a clinical toxicology laboratory, as Director of Research and Development and currently directs the Medtox effort to develop new assays for the measurement of drugs in biological samples utilizing HPLC, GC, GC/MS and LC/MS/MS. Dr. Felice has over 20 years industrial and academic experience in the application of chromatographic methods to biomedical and environmental problems.