

Use of HPLC in the Analysis of Food Products

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Abstract:

As the world becomes smaller and food products are exported/imported across borders, the importance of analytical chemistry in the analysis of food products becomes more visible. As an example, one such natural product that is distributed worldwide is cocoa, used in the production of many chocolate-based foodstuffs. Cocoa is a complex commodity containing in excess of 700 compounds. Because of their presumed health benefits, in the past few years there has been increasing interest in the determination of the polyphenolic compounds in foods using methods that range from colorimetric that measures total polyphenols to those based on HPLC that can separate individual polyphenols using a variety of detectors. This presentation will discuss the chemistry of cocoa, provide an overview of polyphenol chemistry and methods with emphasis on HPLC for the determination of catechins, stilbenes such as resveratrol and other selected compounds.

About the Speaker:

Dr. W. Jeffrey Hurst is a Principal Scientist at the Hershey Company Technical Center. His emphases are in separation science using standard, micro and nanotechniques, laboratory automation, the evaluation of new and emerging analytical technologies, the development and evaluations of methods for the determination for food allergens and the application of nontraditional analytical methods to food analysis. He has developed in excess of 175 methods using chromatography, spectroscopy, spectrometry, immunoassay and assorted analytical techniques on food, environmental and biological samples.

Dr. Hurst is a member of the Continuing and Distance Education Faculty of Penn State University and serves as Adjunct Professor of Comparative Medicine and a member of the graduate faculty at the M.S. Hershey Medical Center. He also has served on graduate examination committees at McGill University, Montreal, Quebec, Canada, Duquesne University and the University of Cordoba, SPAIN.

Dr. Hurst was the founding editor and editor in chief of Laboratory Robotics and Automation, an international journal with a focus on all facets of automation in the laboratory. He is the founding editor of the Wiley-Interscience book series on laboratory automation serves on the editorial board of the Journal of Liquid Chromatography and was founding editor of Seminars in Food Analysis. He was a contributing editor for Scientific Computing and Instrumentation and prepared a monthly column on some aspect of instrument and laboratory operations. He is senior author of Laboratory Robotics, A Guide to Planning Programming and Applications, editor of Automation in the Laboratory, English language editor of Analytical Techniques for Food and Agricultural Products, editor of Electronic Noses and Sensor Array Based Systems and is editor of Analysis of Functional Foods and Nutraceuticals. He is an author on over 200 papers and presentations. He also serves on the Analytical Methods Review Committee of the American Herbal Pharmacopeia (AHP). He has participated in a peer review panel of the Institute for Regulatory Sciences on Chemical Analysis Automation and also participated on NSF Review Panels for Educational Chemical Instrumentation.

Dr. Hurst is a member of the American Chemical Society (ACS), Laboratory Robotics Interest Group of New Jersey (LRIG), a Professional Member of the Institute of Food Technologies, American Society of Mass Spectrometry (ASMS), a Fellow of the American Institute of Chemists (FAIC), a Certified Professional Chemist (CPC), a Fellow of the Royal Australian Chemical Institute (FRACI) and a Chartered Chemist (CChem). Within the AIC, he is chair of the committees on Advanced Professional Thinking, Local Institutes and co-chair of the Editorial Board of The Chemist. He has served a co-leader of the Chemical Measurement Subgroup in the ACS/AICHe/CMA Chemical Industry Technology Roadmap. In 1986 he was awarded a Pioneer in Laboratory Automation award by the International Symposium on Laboratory Robotics and in 2000 was named a Fellow of AOAC International

Location:
D'Ignazio's Towne House
117 Veterans Square
Media, PA 19063

Times:
Executive Mtg - 5:00 pm
Social "Hour" - 5:45 pm
Dinner - 6:30 pm
Presentation - 7:30 pm

Directions:
See below

Cost of Dinner:
\$30 or MC/Visa /AmEx

NOTE TO STUDENTS: Full-time students with valid ID may attend dinner meetings at half price. **Faculty members at colleges and universities are urged to bring one or more students to the meeting. If they do, they also can attend at half-price.**

Dinner Choices: **Chicken Parmesan, Crab cakes, or Grilled veg cannelloni.** Please specify choice of entree when making dinner reservations.

For Reservations:

Please register/call before 4 p.m., **Friday, October 23rd, 2009.** Please note that "no-shows" will be billed for the dinner.

Late reservations: We still want you to attend, so call now. However, we cannot guarantee your entrée selection for dinner.

Contact: We strongly recommend online registration <http://www.cfdv.org/> but you can also e-mail sheree@cfdv.org, or FAX 610-485-9467. For FAX/e-mail, please include your name, employer, work telephone & meal choice. Alternatively, call Ms. Sheree Gold at 610-485-3479 and provide same information.

List of Officers. Please contact any officer for Forum information, to find out how to participate in the Forum or to find out how to participate in Forum Activities. The CFDV website is <http://www.cfdv.org/>.

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Directions to the Towne House

Take I-95 to the Blue Route, I-476; take Exit 3 (Media). Go west on Baltimore Pike past intersection of Rt. 252. The Towne House is 10 blocks further, on the right corner of Veterans Square. (Address: 117 Veterans Square, Media, PA 19063; Phone: 610-566-6141)

***** Call for Nominations *****

Chromatography Forum Award

This award is announced annually and given to a member of the **Chromatography Forum of the Delaware Valley** who has distinguished herself/himself in service to the Forum and contributions to chromatography. Each year the **Forum** seeks to select a deserving awardee.

Nominations should include a statement of the nominee's contributions to the Forum and the contributions to separation science. A seconding letter is not required by strongly recommended. There is no restriction on the length of or content of submission. The deadline for submission is November 30, 2009. Send nominations to:

James J. Sullivan
Jindai Bio
204 Nonantum Drive
Newark, DE 19711
Email: JJFSullivan@comcast.net

