

# CPAC Spring Meeting 2014 Agenda

**May 11 - 13**

**SUNDAY, May 11 - Informal Reception CPAC Meeting Attendees, Hotel Deca**

5:30-8:00	District Lounge, Hotel Deca
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**MONDAY, May 12**

**CPAC Overview, Tutorials, New Technology Developments, Vendor Display and Reception with Hors d'oeuvres - Hardisty Conference Center, Henderson Hall, Applied Physics Laboratory, University of Washington**

8:00	Meeting Registration Desk Opens – Hardisty Conference Room, Henderson Hall, Applied Physics Laboratory, UW
8:30	Meeting Welcome and Introduction Brian Marquardt, CPAC Director, Applied Physics Laboratory, UW
8:45	Introduction to the Program Mel Koch, CPAC, UW
9:00	Nuclear Magnetic Resonance (NMR) for Process Analysis with Potential Applications on NeSSI™ Michael McCarthy and J. H. Walton, University of California, Davis
9:30	Vapochromic Detection and Identification of Important Analytes Kent Mann, Department of Chemistry, U. of Minnesota Brian J. Marquardt and Charles Branham, Applied Physics Laboratory (APL), UW
10:00	Break
10:30	Evaluation of a Cost Effective Methods for Synthesizing Valuable Molecules Tyler McQuade, Florida State University, and Frank Gupton, Virginia Commonwealth University
10:40	Developing Process Control for Flow Chemical Reactions - Unique Approaches to Sampling, Sensing, and Data Handling. Michael Roberto, Thomas Dearing,, Charles Branham, and Brian Marwardt. APL, ,
11:15	Investigating the use of LIBS as an Effective Process Analysis Tool Brian Marquardt, Applied Physics Laboratory (APL), UW
11:40	Update of CPAC Activities Mel Koch, CPAC, UW

Noon	Lunch (Dining with a Student encouraged)
1:15	Novel mini Raman Developments, Dave Veltkamp,
1:40	Online Process Control using Modular Fluid Delivery and Fast & Micro Process Gas Chromatography: From the Sample Point to the DCS Connection John Crandall, Falcon Analytical and Brian Rohrback, Informetrix
2:05	Miniaturized Vibrational Spectrometer, John Coates, Coates Consulting
2:30	Quantum Cascade Lasers - Products and Applications Tim Osbourn, Block Engineering
2:55	Break
3:30	Process Patent Protection: Protecting Intellectual Property via Ambient Stable Isotopes John Jasper (Nature's Fingerprint / MIT, LLC
3:55	Introduction of Vendor Displays and Meeting Participants
4:10-5:30	Poster Session
6:00-8:00	Dinner at Ivars Alaskan Salmon House

## **TUESDAY, May 13**

### **CPAC Research Presentations and Proposals**

8:00	Meeting Registration Desk Opens
8:30	CPAC Daily Overview Brian Marquardt, Director, CPAC, Applied Physics Laboratory (APL)
8:45	Advances in Process Gas Chromatography and Chemometrics Rob Synovec, Chemistry, UW
9:10	Lignin Devired Porous Carbon for Energy Applications. Stephanie Candelaria and Guozhong Cao, Material Sciences, UW
9:35	Evaluation (NDE) of Multi-Layer Films with Micrometer Resolution Using a Fast, Portable, and Low-Cost Terahertz Spectrometer Hassan Arbab and Dale Winebrenner, APL, UW
10:00	Break

10:30	Evaluation of a Cost Effective Method for Real Time Determination of Advanced Biorefinery Processes and Measurements Renata Bura and Rick Gustafson, Forest Resources
10:55	Evaluating Raman Spectroscopy to Improve Process Monitoring and Materials Characterization Brian J. Marquardt and Sergey Mozharov, Applied Physics Laboratory (APL), UW
11:20	Update on Projects with Battery-less Sensors, Josh Smith, UW Electrical Engineering - and Discussion of Morning Presentations
11:45	Lunch (Dining with a Student Encouraged)
1:05	Rapid Analyte Purification and SPR-based Assays Clement Furlong, Graeme Carvlin, and Scott Soelberg. Medical Genetics & Genome Sciences, UW
1:30	Modular Sensing Architecture for Low-Cost Wireless Monitoring Brian Otis, Electrical Engineering, UW
1:55	Measurement of Multi-Layer Coatings of FEF Sensor Alexander Mamishev, Electrical Engineering, UW
2:20	TBA
2:55	Break
3:20	Combination of PAT (Process Analytical Technology) and Data Fusion for Characterization of Chemical Processes Brian Marquardt, Applied Physics Laboratory (APL), UW Tom Dearing, Applied Physics Laboratory (APL), UW
3:45	Discussion of Data Fusion and Related Chemometric Methods (COPA) Brian Rohrback, Infometrix, Inc., Brian Marquardt, and Tom Dearing APL, CPAC, UW
4:10	'Looking to Other Industries for solutions to Long Stading Challenges', Mark LaPack, Eli Lilly (CPAC IAB Chair)  General Meeting Concludes
4:35-5:15	IAB Meeting - CPAC Sponsors
5:15-7:00	Reception, Benjamin Hall Room 512

Additional potential talks:

Generation of RF Powered Wireless Sensor Platforms

Josh Smith, Electrical Engineering and Computer Sciences, UW