



Spectroscopy Society of Pittsburgh November Meeting

Duquesne University – Mellon Hall of Science (Laura Falk Hall)

Wednesday – November 18, 2009

Technology Forum Speaker's Presentation **5:30PM**

Social Hour **6:00PM**

Dinner in the City View Café (6th Floor) **6:30PM**

Business Meeting **8:00PM**

Technical Program Speaker's Presentation **8:15PM**

Deadline for Dinner Reservations **11/13/09**

Carolyn Benga crbssp@yahoo.com or (412) 487-0915

TECHNOLOGY FORUM - 5:30 PM

Dr. Gerry Getman- Biosafe, Inc.

“An Advanced Non-Toxic Polymeric Antimicrobial for Consumer Products Including Plastics Materials, Non Woven's and Spun Plastic Fibers”

BIOSAFE Inc. has developed a broad spectrum polymeric antimicrobial additive for consumer products (HM 4100 antimicrobial). The uniqueness of this structure and functionality provides several methods to incorporate the antimicrobial into different materials.

The reactive silanol groups within the antimicrobial bond to each other and to treated substrates to form a non-leaching antimicrobial product by the following routes: reacts with available functional groups to form covalent bonds; homopolymerizes to form a high molecular polymer; forms strong hydrogen bonds with ingredients in the treated material.



The antimicrobial is also available in master batch forms such as polyurethane, nylon and polyolefins. The antimicrobial has subsequently been compounded into thermoplastics resins, spun into fibers and manufactured into non-woven's. Considerable microbiological testing has been carried out demonstrating the broad spectrum efficacy of this material. Results will be discussed along with the merits of antimicrobial materials. HM 4100's toxicity profile establishes that it is non-toxic and is permanently bound to the material that is being protected.

Bio

Gerry D. Getman, Ph.D. is Vice President of Research at BIOSAFE Inc. Gerry obtained his B.S in chemistry from Florida Southern College and his Ph. D. from Rensselaer Polytechnic Institute. Dr. Getman has over thirty years experience directing research and development programs. At BIOSAFE, Dr. Getman was initially CEO and responsible for launching their antimicrobial technology. He is currently responsible for research and development initiatives of BIOSAFE's proprietary technology

Previously, Dr. Getman was directly responsible for Calgon Corporation's research and marketing effort in biocides for a wide range of uses. While at Calgon several new biocides were introduced. As Vice President of Research at Commodore Advanced Sciences, Inc, Dr. Getman developed an innovative technology for environmental remediation. Dr. Getman holds 6 patents.



TECHNICAL PROGRAM - 8:15PM

Dr. Geraldine Richmond- University of Oregon

“Going Nonlinear to Study Environmental Processes at Liquid Surfaces”

Although the special properties of water have been valued and appreciated for centuries, as scientists we continue to be perplexed by the molecular make-up of water in all its forms. Equally perplexing is the surface of water, a surface that is involved in some of most important reactions in our

atmosphere, a surface that can sculpt the landscape as it flows past rocks and soils, a surface that can break down the strongest of metals, and a surface across which essential nutrients and ions are constantly exchanged in life-sustaining processes in our bodies. In our laboratory we study environmentally important processes at aqueous surfaces using laser based spectroscopic techniques and molecular dynamics simulations. This talk highlights some of our recent studies of the intriguing behavior of water surfaces when in contact with molecules of importance in our environment.

Bio

Geraldine Richmond is the Richard M. and Patricia H. Noyes Professor in the Department of Chemistry and Materials Science Institute at the University of Oregon. Her research using laser spectroscopy and computational methods has focused on understanding the chemistry and physics that occurs at complex surfaces and interfaces that have relevance to important problems in energy production, environmental remediation, atmospheric chemistry and biomolecular surfaces. Recent awards for her scientific accomplishments include the American Chemical Society Garvan Medal (1996), the Oregon Scientist of the Year by the Oregon Academy of Science (2001), the Spectrochemical Analysis Award of the American Chemical Society (2002), the Spiers Medal of the Royal Society of Chemistry (2004), a Guggenheim Fellow (2007) and the Bomem-Michaelson Award (2008). She is a fellow of the American Physical Society, the American Association of the Advancement of Science, the Society for Applied Spectroscopy (2008), the Association for Women in Science (2008) and the American Academy of Arts and Sciences (2006). She is the founder and chair of COACh (Committee on the Advancement of Women Chemists), an organization assisting in the advancement of women faculty in the sciences. Over 4000 science faculty, students, postdocs and administrators around the country have benefitted from professional training and networking workshops developed by COACh. She has been honored for these efforts by the Presidential Award for Excellence in Science and Engineering Mentoring (1997), the American Chemical Society Award for Encouraging Women in the Chemical Sciences (2005) and the Council on Chemical Research Diversity Award (2006).

Dinner Reservations:

Please email Carolyn Benga at crbssp@yahoo.com or call (412) 487-0915 to make dinner reservations NO LATER THAN FRIDAY, November 13, 2009. This month's entrée will be Roast Turkey and Stuffing served with Mashed Potatoes and Cranberries. Fresh Mixed Green Salad will begin the Thanksgiving-style Meal and Pumpkin Pie will be served for dessert. Dinner will cost \$8 and checks can be made out to the SSP. If you have dietary restrictions, please let Carolyn know when you RSVP.

Parking Instructions:

The Duquesne University Parking Garage is located on Forbes Avenue. Upon entering the garage, receive parking ticket and drive to upper floors. Pick up a parking chit at the dinner or meeting. If any difficulties arise, contact Dr. Mitch Johnson at Duquesne University.