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Greetings

Dear Division Members,

As 2011 Chair of the ACS Division of Colloid and Surface Chemistry, it is my pleasure to present to you our annual newsletter. Our goal is to keep the more than 2500 members of the division up-to-date on recent and upcoming events in which the Division is involved. For even more information, please visit the Division website, www.colloidssurfaces.org. There you will find a variety of useful material, including descriptions of upcoming meetings, listings of job opportunities, résumés of job seekers, and descriptions of awards sponsored by the Division.

I certainly hope that you find the newsletter helpful. As always, if you have any suggestions or comments about how to make it better, feel free to contact me or Bob Tilton (tilton@andrew.cmu.edu).

Regards,
John Y. Walz (jywalz@vt.edu)

Officers of the Division

Listed below are the major offices in the division and the 2011 office holders. More information on each officer can be found at the Division's web page, www.colloidssurfaces.org.

Chair	John Walz
Chair Elect	Vicki Grassian
Vice Chair	William Ducker
Program Chair	Ramanathan Nagarajan
Past Chair	Eddy Tysoe
Secretary	Howard Fairbrother
Treasurer	Tonya Kuhl
Councilors	Robert Tilton, Tina Nenoff, Maria Santore, John Russel
Membership Secretary	Kane Jennings
Newsletter Editors	John Walz, Robert Tilton

The Division remains very receptive to new members becoming involved in governance positions. Feel free to contact any of the officers listed above if you are interested in getting involved.

Next Meeting – Anaheim

The Spring 2011 meeting of the American Chemical Society will be held March 27 – 31 in Anaheim, CA with the theme *Chemistry of Natural Resources*. Listed below are the symposia that will be sponsored or co-sponsored by the Division of Colloid and Surface Chemistry

ACS Award Lecture: Symposium in Honor of Dennis Prieve (Invited papers only)

Chairs: Darsh Wasan (wasan@iit.edu), Robert Ofoli (ofoli@egr.msu.edu),
John Y. Walz (jywalz@vt.edu)

Biomembrane Mechanics and Dynamics

Chairs: Subra Muralidharan (subra.murali@wsu.edu), Narayanan Srividya (narayanan_srivid@wsu.edu)

Nanoparticles and Nanostructured Materials for Energy Applications

Chairs: Hong Yang (hongyang@che.rochester.edu), Guozhong Cao (qzcao@u.washington.edu),
Abhi Karkamkar (abhi.karkamkar@pnl.gov)

Reactivity, Transformations and Detection of Natural and Engineered Nanomaterials in the Environment

Chairs: David Cwiertny (dcwiertny@enr.ucr.edu), Heather Shipley (heather.shipley@utsa.edu)

Theory and Modeling of the Individual and Collective Properties of Nanoparticles

Chairs: Yaroslava Yingling (yara_yingling@ncsu.edu), Donald W. Brenner (Brenner@ncsu.edu)

Hydrophobic Surfaces in Nature: Forces, Nanobubbles and Wetting

Chair: William Ducker (wducker@vt.edu)

Nanoscale Materials for Conversion of Biorenewables to Commodity Chemicals and Fuels

Chairs: Robert Ofoli (ofoli@egr.msu.edu), Sherine Obare (sherine.obare@wmich.edu)

Dynamics in Colloidal Dispersions

Chairs: Alexey Kabalnov (alexey.kabalnov@hp.com), Dennis Prieve (dcprieve@cmu.edu)

Molecular Processes at Oxide Surfaces

Chair: John Kitchin (jkitchin@andrew.cmu.edu)

Symposium in Memory of Bob Good

Chairs: J. Adin Mann (j.mann@case.edu), Wilhelm Neumann (Neumann@mie.utoronto.ca)

Nanoparticle-Biological Cell Interactions

Chair: Ramanathan Nagarajan (Ramanathan.Nagarajan@us.army.mil, Terri Camesano (terric@wpi.edu)

Probing Cellular and Sub-cellular Function via Surface Chemistry for Biomedical Applications

Chair: Larry Nagahara (larry.nagahara@nih.gov), Nicole Moore (mmk1ster@gmail.com)

Poster Session -- Fundamental Research in Colloid and Surface Science

Chair: John Texter (jtexter@emich.edu)

Highlights of the Fall 2010 Meeting – Boston

The Fall 2010 ACS meeting was held August 22 - 26 in Boston, MA with the theme “Chemistry for Preventing and Combating Disease”. The Colloid and Surface Chemistry Division sponsored or co-sponsored 17 symposia, including the Langmuir Lectures, presented by Professor Vincent Rotello of the University of Massachusetts and Professor Richard Lambert of Cambridge University (see article of the Langmuir lectures later in the newsletter). Over 140 posters were presented in the Monday evening poster session focused on Fundamental Research in Colloid and Surface Science. In addition, symposia honoring Dr. Kash Mittal and Professor Richard Lambert were held.



Winners of the student poster competition in Boston were (l to r): April Jewell (Tufts University), Nicel Estillore (Univ. of Houston), Colloid and Surface Chemistry Division Chair Dr. Eddy Tysoe, Roderick Pernites (University of Houston), and Avram Buchbinder (Northwestern University). All winners received a check for \$250.



Fall 2011 – Denver

The Fall 2011 meeting will be held August 28 – Sept. 1 in Denver, CO, with the theme *Chemistry of Air, Space and Water*. The program for this meeting is still being developed. Division members interested in organizing a symposium for Denver, especially one that could fit within the theme, are encouraged to contact the Program Chair, Dr. Ramanathan Nagarajan at ramanathan.nagarajan@us.army.mil.

The ACS Fellows Program

The ACS Fellows Program was created by the ACS Board of Directors in December 2008 “to recognize members of ACS for outstanding achievements in and contributions to Science, the Profession, and the Society.” Nominees must be current members in good standing with ACS, and selection is based on demonstrated excellence in two defined areas: (1) excellence to science/profession, and (2) outstanding service to ACS. A total of 192 new fellows were named in 2010. Of these, the following 17 were members of the Division of Colloid and Surface Chemistry.

Anne M. Gaffney
Bruce D Kay
Constance M Hendrickson
David G. Whitten
Eric William Kaler
Galen B Fisher
Hai Lung Dai
John N. Russell, Jr.
Kenneth S. Suslick

Maria M. Santore
Paul S. Weiss
Robert D. Tilton
Timothy K. Minton
Timothy P. Lodge
Warren T. Ford
Attlia E. Pavlath
Barbara J. Garrison

The Langmuir Lectures

Each year since 1979, the Colloid and Surface Chemistry Division selects two outstanding researchers to present the Langmuir Lectures at the Fall ACS Meeting. (A list of prior lecturers can be found at the Division web page, <http://colloidssurfaces.org/awards/langmuir.php>).

For 2010, a modified selection process was used in which a committee consisting of representatives from both the Division and the ACS journal *Langmuir* selected the two winners from nominations that were received from Division members. The 2010 selection committee was Eddy Tysoe (Division Chair), John Walz (Division Chair-elect), and David Whitten (Editor-in-Chief, *Langmuir*). The committee received 34 nominations, and after much discussion, was pleased to announce the 2010 Langmuir Lecturers to be Professor Vincent Rotello, University of Massachusetts, and Professor Richard Lambert, Cambridge University.



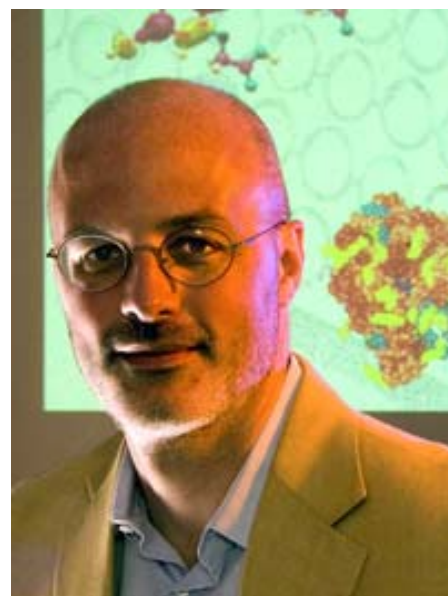
Professors Richard Lambert (l) and Vincent Rotello (r) receive their Langmuir Lecturer Award plaques from Division Chair, Professor Eddy Tysoe.

The 2010 Langmuir Lecturers

Richard M. Lambert is Head of the Inorganic Sector in the Chemistry Department at Cambridge University. He received his B.A. and D. Phil in Chemistry from Oxford and served two years as a post-doctoral researcher and temporary faculty member in the Department of Chemistry at the University of California Berkeley. Lambert's research involves application of laboratory-based and synchrotron radiation techniques to address a broad range of problems in which the common theme is the structure and reactivity of solid surfaces. Current interests include photocatalysis, solid state electrochemistry, surface-mounted molecular rotors, sensors, enantioselective and chemoselective reactions, new approaches to two-dimensional molecular self-assembly, biomimetically-inspired catalytic systems based on tethered metalloporphyrins, heterogeneous chemistry of tropospheric mineral aerosols and quantum size effects on the chemistry of nanoscopic gold particles. He has published over 370 papers and review articles in these and other fields, and he has been awarded the Yarwood Medal and Prize from the British Vacuum Society and the Royal Society of Chemistry Award in Surface and Colloid Chemistry. Professor Lambert's Langmuir Lecture was entitled "Catalytic Chemistry and Self-Assembly on Metal Surfaces".



Vincent M. Rotello is the Charles A. Goessmann Professor of Chemistry at the University of Massachusetts-Amherst. He received his B.S. degree from the Illinois Institute of Technology, and M.S. and Ph.D. degrees from Yale University. He also was an NSF Postdoctoral Fellow at MIT for three years before starting his faculty career. Rotello's research has focused on the use of nanoparticles in biology and materials. Specific projects include the use of nanoparticles as scaffolds for biomacromolecule recognition, tunable cellular uptake and drug release using gold nanoparticles, self-assembly of nanoparticles to create nanocomposites and bionanocomposites, and development of nanostructured thin film surfaces. He has published over 290 peer-reviewed papers in these and other areas. He is a Fellow of the American Association for the Advancement of Science and the Royal Society of Chemistry and has received the University of Massachusetts Chancellor's Medal. Professor Rotello's Langmuir Lecture was entitled "Engineering the Nanoparticle Interface for Materials and Biological Applications".



Highlights of the Spring 2010 Meeting – San Francisco

The Spring 2010 ACS meeting was held March 21 – 25 in San Francisco, CA with the theme *Chemistry for a Sustainable World*. The Colloid and Surface Chemistry Division sponsored or co-sponsored 11 symposia, including sessions honoring Professor Clifford Bunton, Professor Mounji G. Bawendi (winner of the ACS Award in Colloid and Surface Chemistry) and Professor Robert J. Madix (winner of the Gabor A. Somorjai Award for Creative Research in Catalysis).

Winners of the award for best student poster were John Hayes (Western Washington University), Ian Klink (University of California Davis), Moonhee Kim (Penn State) and Maniraj Bhagawati (University of Osnabrück).



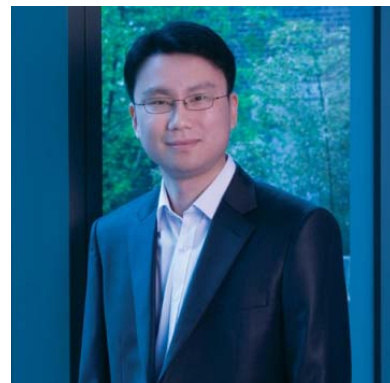
Division chair Professor Eddy Tysoe (l) presents awards to winners of the student poster contest

Professor Mounji G. Bawendi of MIT presents the ACS Award in Colloid and Surface Chemistry lecture, “Science and Technology of Semiconductor Nanocrystal Quantum Dots”.



The 2010 Victor K. LaMer Award Winner

Daeyeon Lee received his B.S. in Chemical Engineering from Seoul National University in 2001 and received his Ph.D. in Chemical Engineering/Program in Polymer Science and Technology at MIT in 2007 co-supervised by Robert E. Cohen and Michael F. Rubner. After his PhD, Daeyeon was a postdoctoral fellow in the School of Engineering and Applied Sciences at Harvard University where he worked with David A. Weitz. Daeyeon joined the Department of Chemical and Biomolecular Engineering at the University of Pennsylvania in 2009.



Daeyeon Lee's research goal is to extend the basic understanding of soft matter such as colloids, polymers, and nanomaterials to fabricate functional structures with properties designed for advanced applications. Recently, his group has focused on generating functional nanostructured thin films using layer-by-layer assembly of polymers and nanomaterials in aqueous as well as non-aqueous media. Microfluidic approaches are used for the generation of stimuli-responsive microcapsules, bubbles and hierarchically-assembled suprastructures for applications in biomedical, renewable energy and phononic applications

The Victor K. LaMer Award is presented each year to the top Ph.D. thesis in the field of colloid and interfacial science in the United States and Canada. The winner receives \$3,000 and the opportunity to present his/her work at the summer ACS Colloid and Surface Science Symposium.

The 2010 Unilever Award Winner

Ali Khademhosseini is an Assistant Professor at Harvard-MIT's Division of Health Sciences and Technology, Brigham and Women's Hospital and Harvard Medical School. He received his Ph.D. in bioengineering from MIT (2005), and MAsC (2001) and BAsC (1999) degrees from University of Toronto, both in chemical engineering.

His research is based on developing micro- and nanoscale technologies to control cellular behavior with particular emphasis in developing microscale biomaterials and engineering systems for tissue engineering. Currently, his laboratory is developing technologies to control the formation of vascularized tissues with appropriate microarchitectures as well as regulating stem cell differentiation within microengineered systems.



Other award received by Khademhosseini include the AIChE Colburn award (2010), the TERMIS-NA Young Investigator Award (2010), the International Academy of Medical and Biological Engineering (IAMBE) Young Faculty award (2009), the NSF CAREER award (2009), and the Office of Naval Research (ONR) Young Investigator award (2010).

The annual Unilever Award recognizes fundamental work in colloid and surfactant science carried out in North America by researchers in the early stages of their career. The winner receives \$3,000 and the opportunity to present his/her work at the summer Colloid and Surface Science Symposium.

Continuing Symposia

A primary role of the Division of Colloid and Surface Chemistry is to develop programming for the national Fall and Spring ACS meetings. This task is primarily handled by the Division Programming Chair, currently Dr. Ramanathan Nagarajan. The Continuing Symposia were developed by the Division to assist the Programming Chair with this role. These symposia are relatively broad areas of interest encompassing a range of specific research fields. The Chairs of each of the Continuing Symposia will be contacted every three or four years by the Programming Chair about developing programming at an upcoming meeting. The Continuing Symposia Chairs can either organize the programming themselves or draft other researchers to develop the programming.

The list of current Continuing Symposia and the chair(s) is given below. As seen, the chair position of several of the symposia is currently vacant, and the Division would welcome volunteers who might be interested in serving in this role.

Continuing Symposium Title	Chair(s)
Colloidal Particles	Srinivasa Raghavan, Alexey Kabalnov
Colloid and Surface Chemistry of Advanced Materials	
Colloids in Cosmetics, Pharmaceuticals and Foods	Patrick Spicer
Computer Simulations in Surface and Colloid Chemistry	Anna Balazs, Donald Brenner
Electrochemical Surface Science	Jeff Long
Foams, Gels & Self-Assembled Films	Lynn Walker
Interfacial Chemistry and the Environment	Vicki Grassian
Membrane Surfaces and Interfaces	Anul Parikh, Subra Muralidharan
Molecular Processes at Solid Surfaces	John Kitchin
Nanoparticles and Nanostructured Materials	Marc Porter, Hong Yang
New Techniques in Surface and Colloid Chemistry	
Polymer and Polyelectrolyte Interfaces	Maria Santore
Protein and Biomolecular Interfaces	
Surface Chemistry in Biological & Medical Applications	Sonke Svenson, Anil Mahapatro
Surfactants and Association Colloids	Ramanathan Nagarajan, Matthew Lynch
Tribology: Friction, Wear & Lubrication	Andrew Gellman, Seong Kim

In addition to programming from the Continuing Symposia, the Division is always open to researchers interested in organizing a symposium at the Fall or Spring meetings on a topic of interest. A symposium typically consists at least two and up to nine half-day sessions, with each session having 8 to 10 talks. Anyone interested in organizing a symposium should contact the Programming Chair, Dr. Ramanathan Nagarajan at ramanathan.nagarajan@us.army.mil.