

A Message from the Chair, Laurie J. Butler

The March Meeting is the only general meeting each year of the APS Division of Chemical Physics, and it serves as a focal point for our interdisciplinary field. The DCP symposia at the March Meeting seek to represent the breadth and depth of scientific inquiry of our members. This year, the program organized by Roger Miller includes five special symposia:

- 11.9.1 Frontiers in Ultrafast Dynamics of Complex Systems
- 11.9.2 Frontiers in Optical Control of Complex Systems
- 11.9.3 Structure and Properties of Organic Thin Films
- 11.9.4 Dynamics, Assembly, Reactivity and Function across Extended Length-Scales
- 11.9.5 Photonics and the Nanoscale: Devices, Materials and Chemistry

Contributed abstracts are due before December 6; to assure your paper will be given an oral slot in the symposium closest to your interest, choose one of the special symposia listed below and include its sorting number (e.g., 11.9.2) when you submit your abstract. Some talks may also be accommodated into one of the two general oral sessions; last year there was one on surface science and one on complex systems, but we try to accommodate speakers in one of the special symposia as they draw the largest attendance.

I hope those of you who mentor advanced Ph.D. students or postdoctoral associates will encourage them to present their work at the March Meeting this year. We have dedicated a significant fraction of the DCP's resources to assist graduate students to attend the meeting. Most other major scientific meetings of interest to our membership do not include a significant number of oral presentations from our young colleagues; the March Meeting offers the opportunity for your students to give a talk in the same session as leaders in our field. Furthermore, I trust that the more established member of our community will support the meeting by attending them whether they are giving a talk or not; it is fertile ground for exchanging ideas, developing collaborations, and recruiting those young colleagues to postdoctoral positions! I also encourage you to forward your suggestions for symposia for the March 2004 meeting to Emily Carter (eac@chem.ucla.edu) who will serve as program chair for that meeting.

The March Meeting also serves as the forum for the presentation of the majority of the APS awards. This usually includes the Broida Prize, the Plyler Prize and the Langmuir Prize. These are among the most prestigious awards in the field of chemical physics. Their worth is based not on their monetary value but on the very high quality of the nominees and supporting letters and on the exceptional scientific accomplishments of prior recipients. The APS has requested that we bring the monetary value of these prizes to a level commensurate with prizes awarded by the other divisions of the APS; thus I urge members of the Division to help identify potential donors to support these awards. Inquiries may be directed to the DCP officers or to the APS awards office at honors@aps.org.

Important Deadlines

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| • Graduate Student Travel Award applications: | November 29, 2002 |
| • Abstracts for contributions to the March Meeting: | December 6, 2002 |
| • Ballots for new DCP officers: | December 16, 2002 |
| • Early registration for March Meeting: | January 3, 2003 |
| • APS Fellowship Nominations for DCP: | February 15, 2003 |

My thanks to the organizers of this and last years DCP symposia, to the members of the DCP's executive committee, to the dedicated staff at the APS, and to my colleagues whose participation in and redirection of the DCP's activities help foster an atmosphere conducive to scientific education and discovery.

March APS Meeting, Austin, Texas, March 3-7, 2003

The APS March 2003 meeting will be held March 3-7 in Austin, Texas. Information about the meeting is available at <http://www.aps.org/meet/MAR03/> and instructions for submitting abstracts can be found at <http://www.aps.org/meet/abstracts/meet-abstract.html>. The deadline for abstracts is December 6, 5 PM EST.

The annual DCP business meeting is also part of the March Meeting and will include short reports of DCP activities, presentation of Certificates of Fellowship to new APS Fellows who are DCP members, and introduction of student travel fellowship awards. All members are invited to attend. The date of the meeting will be published in the January newsletter.

The DCP Special Focus Topics for the March 2003 meeting include the following.

11.9.1. Frontiers in Ultrafast Dynamics of Complex Systems

Organizers: John Papanikolas (University of North Carolina) and Gary Leach (Simon Fraser University)

This symposium on ultrafast science will focus on the measurement and elucidation of dynamics in nanoparticles and other nanoscale materials, surfaces and interfaces, liquids and solids, molecular assemblies, polymers, and biological systems as studied by both experimental and theoretical methods. Topics will also include: solvation dynamics in condensed phase systems, protein structure and dynamics, and ultrafast coherent effects in semiconductors and magnetic structures. The symposium will also explore terahertz generation and application, attosecond pulse generation, applications of ultrafast x-ray pulses, multidimensional spectroscopy, and other areas of high-field science.

11.9.2. Frontiers in Optical Control of Complex Systems

Organizers: Roseanne Sension and Roberto Merlin (University of Michigan)

This symposium will explore frontier areas in both strong and weak field optical control of complex systems including control of molecular dynamics in isolated molecules, chemical reactions in condensed phases, dephasing in dissipative media, electrons in semiconductors, and phonons in crystals. Both theoretical and experimental approaches will be considered.

11.9.3. Structure and Properties of Organic Thin Films

Organizers: Hai-Lung Dai (University of Pennsylvania) and Giacinto Scoles (Princeton University)

This symposium on multilayer thin films and self-assembled monolayers of organic molecules deposited on metal (including Hg), semiconductor and insulator surfaces will focus on their structure, characterization, and properties. The use of X-ray diffraction, atom and electron scattering, nonlinear optical spectroscopy, scanning probe microscopy, and other newly developed techniques for the characterization of the organic thin film structure and properties will be examined. The dynamics and kinetics concerning film growth and assembly, crystal nucleation, morphology and polymorphism will be discussed. Covered properties shall include: Conductivity and charge carrier and relaxation dynamics, hyperpolarizability, adsorption and emission of light, exciton dynamics and chemical reactivity.

11.9.4. Dynamics, Assembly, Reactivity and Function Across Extended Length-scales

Organizer: Steven J. Sibener (University of Chicago)

This symposium will explore current issues in the assembly, chemical and physical properties, and dynamics of low-dimensional and confined systems across extended length-scales. Experiment, theory, and simulation papers are solicited for the following sessions which span phenomena encompassing atomic, molecular, supramolecular, nano- and micron length-scales: (i) atomic manipulation and dynamics, (ii) molecular assembly, (iii) cluster materials and bucky media, (iv) complex organic and polymeric systems, (v) organic/inorganic/bio hybrid systems.

11.9.5. Photonics and the Nanoscale: Devices, Materials and Chemistry

Organizer: Paul Barbara (University of Texas)

This symposium will focus on the chemical physics of nanostructured media. The central issues in this field involve an in depth understanding of photonics on the nanoscale. Examples of key types of structured materials include 1,2, and 3-D photonic crystals, active photonic bandgap structures, optical nano- manipulation & patterning, organic nanostructured materials & devices, arrays of near-field apertures, and nano-imprinted structures. Applications include chemical and biological sensing, optical modulators, and much more.

Graduate Student Travel Awards

DCP sponsors travel awards for graduate students who present a paper or a poster at the March Meeting. Eligible expenses include reduced rate airfare or car travel, registration, economy room, and board for the duration of the meeting. Awards can range from \$250 to \$400. As many as twelve awards will be made. Criteria:

1. The work must be of significance suitable for a National APS meeting. The work would be presented as a poster at a DCP poster session or in a DCP sponsored oral session.
2. The applicant cannot have previously received a DCP-GSTA award.
3. The student must be a member of DCP. Students who are not currently members can still apply, but they must join both APS and DCP before their check will be issued.

Application:

1. The graduate student should submit an abstract directly to APS (see meeting information above) as well as a copy to the DCP-GSTA committee chair listed below. In addition, the graduate student should send a list of estimated expenses to the DCP-GSTA committee chair.
2. The faculty advisor of the student must write a nomination letter specifying the student's role in the research and explaining the significance of the work. Normally, only one applicant from any research group will be selected.

The application deadline is November 29. This is a rigid deadline for when applications must be received. Decisions will be made quickly so that any unsuccessful applicants may, if they wish, withdraw their abstract before it is published in the APS bulletin. The amount of individual awards will be based on total available funds and estimated expenses. Send applications to Professor Peter J. Rossky.

Applications may be sent by:

E-mail: rossky@mail.utexas.edu

FAX: 512-471-1624

Postal: Department of Chemistry and Biochemistry, University of Texas A5300, 1 University Station, Austin, Texas 78712

If you know a student who would benefit from this opportunity, please bring this to her or his attention.

Chemical Physics Programs

The Division of Chemical Physics (DCP) of the American Physical Society has begun a project to gather information about undergraduate and graduate programs within academic institutions that provide training with more physics than the typical chemistry degree and more chemistry than the typical physics degree. We denote these programs as "Chemical Physics" although the term should be construed broadly to include programs that might have different names. Our goal is to make this information available to prospective students in a centralized and easily accessible location on the web. The questionnaire has been developed by the DCP and sent to chemistry and physics departments throughout the US. Please contact Bruce Garrett (bruce.garrett@pnl.gov) if your institution has such a program and has not received the questionnaire. Our goal is to have information about all "Chemical Physics" programs available.

DCP Membership

Membership in the American Physical Society's Division of Chemical Physics allows you to directly support a primary forum for chemical physics research. The status and influence of the DCP within the APS is dependent on the number of DCP members. Increasing DCP membership is crucial to preserving this important professional asset. If you are not a DCP member, we encourage you to join on the web (<http://www.aps.org/memb/unitapp.html>) or by phone (301-209-3280).

DCP Web Site

The DCP web site (<http://www.aps.org/units/dcp>) is continually being updated, so check it out from time to time. If you have ideas for information that you would like to see on the web, please send your suggestions to Bruce Garrett (bruce.garrett@pnl.gov). We are soliciting graphics and images for the home page and plan to rotate them periodically. If you have an image or artwork you would like to see featured, please send a jpeg file and caption to Bruce Garrett (<mailto:bruce.garrett@pnl.gov>).

Fellowship Committee and Nominations

Nominations for APS Fellowship to be considered by the DCP Fellowship Committee should be made before February 15, 2003. Thanks go to Joel Bowman for chairing the committee this year, and to Mary Mandich and Terry Miller for their service on the committee. Instructions for submitting a nomination are included on the APS web site (<http://www.aps.org/fellowship/fellinfo.html>).

Election of New DCP Officers

We are fortunate to have an excellent slate of candidates for the positions of Vice-Chair and Member-at-Large. Both of these positions are for three-year terms. The Vice-Chair becomes the Chair-Elect in the second year of the term and Chair in the final year. The main duties of the Chair are to provide general leadership for the Division, to make sure that the various Division committees are staffed, and to preside at the business meetings of the Division. The most time-consuming job of the Chair-Elect is to organize the DCP symposia for the upcoming National meeting. The duties of the Member-at-Large are less well defined, other than to attend the March Meeting. In the past they have organized the student fellowship program, assisted in membership recruiting, and helped with the organization of National meetings. All members of the Executive Committee, which includes the DCP Officers as well as the Members-at-Large, meet at the March APS meeting to help plan DCP activities for the coming year.

The election will be conducted electronically again this year. DCP members with email addresses on file will be emailed a ballot. Paper ballots and candidate information will be mailed to those members who cannot be reached by email. The deadline for returning ballots (electronically and by mail) is December 16, 2002.

We are indebted to the Nominating Committee, consisting of James Skinner (chair), Marsha Lester, and Don Levy, who have convinced the following individuals to stand as candidates.

Candidates for Vice-Chair

BRANKA M. LADANYI. Professor, Department of Chemistry, Colorado State University, Fort Collins, CO. B.S., McGill University, 1969. Ph.D., Yale University, 1973. APS Fellow, 1997. Associate Editor, Journal of Chemical Physics.

RESEARCH INTERESTS: Statistical mechanics, structure and dynamics of molecular fluids, solids and clusters. Theoretical and computational studies of chemical reactions in solution, dielectric relaxation, light scattering, nonlinear optical phenomena and vibrational relaxation.

Web site: <http://www.chm.colostate.edu/bl/>

MARK A. RATNER. Professor, Department of Chemistry, Northwestern University, Evanston, IL. A. B., Harvard University, 1964. Ph.D., Northwestern University, 1969. Amanuensis, Aarhus University, Denmark, 1969. Akademischer Rat, Technical University, Munich, Germany, 1969. APS Fellow, 1977. Member, National Academy of Sciences.

RESEARCH INTERESTS: Solid-state chemistry, electron transfer, polymer properties, molecular response and device properties, vibrational interactions and mode-specific reactions, self-consistent field theory for coupled vibrations, solid electrolytes, molecular electronics.

Web site: <http://www.chem.northwestern.edu/brochure/ratner.html>

Candidates for Member-at-Large of the Executive Committee

MICHAEL A. DUNCAN. Distinguished Research Professor, Department of Chemistry, University of Georgia, Athens, GA. B. S., Furman University, 1976. Ph.D., Rice University, Houston, TX, 1982. APS Fellow, 2001. Senior Editor, Journal of Physical Chemistry.

RESEARCH INTERESTS: Applications of laser spectroscopy, supersonic molecular beams and time-of-flight mass spectrometers in the study of metal atom clusters and metal-molecular complexes. Electronic and infrared spectroscopy using resonance enhanced ionization and especially mass-selected photodissociation. Synthesis of nanocluster materials.

Web site: <http://www.arches.uga.edu/~maduncan/>

MARK MARONCELLI. Professor, Department of Chemistry, Pennsylvania State University. B.A., Williams College, 1979. Ph.D., University of California, Berkeley, 1983.

RESEARCH INTERESTS: Structure and dynamics of liquids and solutions, solvation and solvent effects on chemical reactions, supercritical fluids, ultrafast spectroscopy, and computer simulation.

Web site: <http://maroncelli.chem.psu.edu/>

Meetings of Possible Interest to DCP Members

Gordon Research Conference on Chemical Reactions at Surfaces

February 16-21, 2003

Holiday Inn, Ventura, California

Organizers: Hajo Freund, Department of Chemical Physics, Fritz-Haber-Institut der MPG, Berlin
Charles T. Campbell, Department of Chemistry, University of Washington, Seattle

Email: freund@fhi-berlin.mpg.de
campbell@chem.washington.edu

Web site: <http://www.grc.org/programs/2003/chemreac.htm>

Gordon Research Conference on Gaseous Ions: Structures, Energetics & Reactions

March 2-7, 2003

Ventura Beach Marriott, Ventura, California

Organizers: Terrance B McMahon, Department of Chemistry, University of Waterloo
William L Hase, Department of Chemistry, Wayne State University, Detroit

Email: mcmahon@sciborg.uwaterloo.ca
wlh@mercury.cs.wayne.edu

Web site: <http://www.grc.org/programs/2003/gaseous.htm>

Gordon Research Conference on Electronic Spectroscopy and Dynamics

July 6-11, 2003

Bates College, Lewiston, Maine

Organizer: James Skinner, Department of Chemistry, University of Wisconsin, Madison

Email: skinner@chem.wisc.edu

XIXth Conference on the Dynamics of Molecular Collisions

July 13-18, 2003

Granlibakken Conference Center and Resort at Lake Tahoe, Tahoe City, California

Organizers: Laurie Butler, Department of Chemistry, University of Chicago

Al Wagner, Chemistry Division, Argonne National Laboratory

Email: L-Butler@uchicago.eduWeb site: <http://home.uchicago.edu/~ljb4/DMC2003.html>**Gordon Research Conference on the Chemistry and Physics of Liquids**

August 3 - 8, 2003

Holderness School, Plymouth, New Hampshire

Organizers: Peter Rossky, Department of Chemistry, University of Texas, Austin

Graham Fleming, Department of Chemistry, University of California, Berkeley

Email: rossky@mail.utexas.edu