



## January 1997 Newsletter

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I hope that all DLS members realize that we are beginning our first full year as a Division of the American Physical Society. The opportunities that come with full divisional status are great and so are the responsibilities. I've been repeatedly reminded of both in the past two months.

Partner organizations in laser science are letting us know that they would value our participation with them in a variety of new ventures and our assistance in pursuing existing common goals.

We will continue to work with them whenever possible, and we will also take several steps to make sure that our own agenda is understood and receives the attention we believe it deserves. One step will be a division of the semi-annual meeting of the division's Executive Committee into two parts, following a suggestion by Pat Dehmer, last year's Chair. This will allow us to complete formal business matters, and then invite representatives of organizations and agencies that have an impact on the professional lives of division members to join the Executive Committee as a group for both formal and informal discussions, probably at dinner. The participants are expected to be drawn from a wide list including representatives of relevant federal funding agencies, committees of the National Academy of Sciences, other professional organizations in laser science, and journal and book publishers.

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Another step, already taken, was to open discussions with Physical Review A, Journal of Chemical Physics, Journal of Physical Chemistry, Chemical Physics Letters, and Physical Review Letters by correspondence and through discussions with representatives who attended the Executive Committee meeting held in Rochester during the ILS conference. One immediate concrete result is the appointment of two DLS members, Kenneth C. Kulander and John C. Miller, as Divisional Associate Editors of Physical Review Letters. They will have begun work by the time this message appears.

*contd. on pg. 3*

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## New Officers of the DLS Executive Committee

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We would like to congratulate the winners of this fall's election. **Bill Phillips** was elected as the Vice-Chair, **Win Smith** as the Secretary-Treasurer, and **Doreen Weinberger** and **Tom Mossberg** as the Members-at-Large. Their term of office began at the conclusion of the ILS-XXII Conference.

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## APS FELLOWS

Congratulations to the five DLS members who were elected Fellows of APS in 1996:

John Edward Bowers, University of California-Santa Barbara

*For contributions to the understanding of the ultrafast characteristics of optoelectronic devices and materials*

Bob D. Guenther, Army Research Office

*For seminal contributions to the fields of quantum electronics and optics, including the development of the use of lasers for enhanced magnetic resonance imaging, and for contributions to education in optics*

Wayne Harvey Knox, Bell Laboratories

*For his studies of fundamental physics of ultrafast lasers, development of novel and practical ultrafast lasers, and studies of ultrafast relaxation processes in semiconductors using such lasers*

Paul David Lett, N.I.S.T.

*For his seminal contributions to laser cooling and particularly to the study of collisions of laser cooled atoms and spectroscopy of weakly bound molecules formed in such collisions*

James Anthony Misewich, IBM T. J. Watson Research Center

*For the development and application of innovative laser techniques to elucidate fundamental problems in molecular dynamics and molecule-surface interactions*

## STUDENT TRAVEL GRANTS

**Awards of up to \$700**

The DLS is pleased to continue its program to support student travel to DLS-sponsored meetings. A limited number of grants for travel and living expenses, up to \$700, are available to graduate students who are DLS members and who are authors or co-authors on an oral or poster paper at the ILS-XIII meeting. To make these funds as widely available as possible, some priority will be given to requests for a lower level of support and to distribution of these grants to students of different institutions.

Applicants should submit a letter stating their estimated need for travel funds, including commitment of institutional support, if any, attached to a copy of the submitted abstract on which they are first author, and a letter of nomination from a member of DLS. Please list daytime phone number, fax number, e-mail address, and social security number. **Applicants are required to fax or e-mail their acceptance letter or attach it to the application upon receiving the official notice from OSA. Only one award will be given to a research group.** If it is likely that the paper cannot be given without financial support, the student should indicate whether the paper would have to be withdrawn if this request for funds cannot be met. Checks will be issued at the meeting. Hotel accommodations will be covered at up to half the conference rate for a double room.

The nominator should certify that the applicant is a full-time graduate student, and, in the case of foreign students, that they have a student visa valid through the meeting dates. The applicants will be evaluated by the selection committee chaired by Dr. Winthrop W. Smith. Applications should be sent to Dr. Smith at the address given on the first page of this Newsletter. **The deadline for submitting applications for the QELS/CLEO Meeting is March 7, 1997 and for the ILS-XIII/OSA Meeting is August 15, 1997.**

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#### **Chair's Message** (*contd. from pg. 1*)

A new proposal, being considered jointly with the Optical Society of America, will offer support for student attendees at the annual joint ILS-OSA meeting if plans can be worked out. Both organizations want to encourage participation by students who would not previously have considered attending. A full or partial registration fee waiver is being considered. I hope it will be possible to complete our discussions in time to offer some incentive of this kind at the next meeting, in Long Beach next October. It's clear I may have news to report on several fronts in the next Newsletter. In the interim, I encourage comments at any time about improvements in services or procedures of DLS. They can be sent to me. Finally, I send to all DLS members the best wishes of the Executive Committee for a productive and Happy New Year.

**J.H. Eberly**

#### **Fellow Nominations for 1997 are Solicited!**

The DLS has made many distinguished contributions to the list of APS Fellows. Nominations for next year's fellowships are now being solicited. The number of DLS nominations chosen to be forwarded to the APS for confirmation as Fellow in a given year is typically in the range 5-10. This depends on the good judgement of the nominators in the first place and also on the

Divisional Committee on Fellows headed by the DLS Vice-Chair, Bill Phillips, but the Committee can do nothing without nominations. This is where DLS members must come into the picture. The Executive Committee is urging all DLS members to think whether a colleague deserving of the rank of Fellow comes to mind. If you are uncertain about a colleague's status, consult the APS Membership Directory, where an asterisk identifies Fellows.

Any member can nominate any other member, and the supporting documentation is not difficult to assemble. The deadline for a nomination and supporting letters to reach the APS, in time for DLS consideration, is more than 3 months away, **April 1, 1997**, providing plenty of opportunity for action. All of the required information is available on a WWW page and easily found via <http://aps.org/fellowship/fellform.html>. A phone call to Ken Cole of the APS at 301-209-3268 will also work.

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## **DIVISION OF LASER SCIENCE**

### **APS MARCH MEETING**

**17-21 March, 1997, Kansas City, MO**

The Division of Laser Science will sponsor two symposia at the APS March Meeting

1. *Probing Electron Dynamics at and near surfaces with Ultrafast Lasers*, a one-session symposium organized by Richard Haight (Thomas J. Watson Research, Center, PO Box 218, Room 29-027, Yorktown

Heights, NY 10598, Office: (914) 945-3805, email: [rhaight@watson.ibm.com](mailto:rhaight@watson.ibm.com)). Invited speakers include Ulf Karlsson (Royal Institute of Technology, Stockholm) and Yongli Gao (University of Rochester).

2. *Formation, Detection, and Study of Small Metal-Carbon and metal-Oxygen Clusters*, a two-session symposium organized by W. Castleman (Pennsylvania State University, office: (814) 865-7242,

email: [awc@psuvm.psu.edu](mailto:awc@psuvm.psu.edu)) and K. Bowen (Johns Hopkins, office: (410) 516-8425). Invited speakers include R. Compton (Oak Ridge), T. P. Martin (Stuttgart), M. Duncan (U. Ga), B. Freiser (Purdue), S. El-Shall (VCU), and P. Jena/S. Khanna (VCU), W. Castleman, and K. Bowen.

More information on the Division of Laser Science's March Meeting participation can be obtained at: <http://www.msc.cornell.edu/~plh2/group/plhhome.cfm>.

## **DISTINGUISHED TRAVELING LECTURER PROGRAM**

### **IN LASER SCIENCE**

The **Division of Laser Science (DLS)** is accepting applications from host schools for the next round of awards for the Distinguished Traveling Lecturer (DTL) Program. The DTL Program is intended to bring distinguished scientists to predominantly undergraduate colleges and universities for two day visits, which may include lectures and informal meetings with faculty and students.

**Lecturers for the 1996-1997 Academic Year and their topics:**

- Geraldine Richmond, Univ. of Oregon, Dept. of Chemistry. Surface Non-Linear Optics.
- Jagdeep Shah, AT&T Bell Laboratories. Quantum Optics.
- Stephen Leone, JILA, Univ. of Colorado. Chemical Physics
- Philip Bucksbaum, Dept. of Physics, Univ. of Michigan. High-Field Laser Physics
- Bill Phillips, NIST. Atom Cooling and Trapping

The Distinguished Traveling Lecturer Selection Committee members are Michael Raymer (Chair), Neal Abraham, and Paul Kleiber.

Detailed information about the program and the application procedure is available on DLS Homepage on the World Wide Web at <http://www.physics.wm.edu/~cooke/dls/dls.cfm>

**DEADLINE FOR FALL 1997 APPLICATIONS IS JANUARY 17, 1997.**

**DEADLINE FOR SPRING 1998 APPLICATIONS IS JUNE 15, 1997.**

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**EDITOR'S NOTE:**

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Several changes have occurred in this issue of the Newsletter. First, a new logo has been introduced. The logo was originally created by Mr. Toby Wilson, a former student at Oklahoma State University, and modified by Carol Wicksted. Second, some formatting changes have been made, such as an "**IN THIS ISSUE**" table appearing on the first page. In the next issue, an "**IN FOCUS**" section will be added. As always, your comments and suggestions are welcome. Please send letters concerning the Newsletter to Jim Wicksted, DLS Newsletter Editor, Center for Laser Research, 413 NRC, Oklahoma State University, Stillwater, OK 74078-3038; (405) 744-5807; FAX (405) 744-6406; e-mail: [jpw519@vms.ucc.okstate.edu](mailto:jpw519@vms.ucc.okstate.edu)

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**ARTHUR L. SCHAWLOW PRIZE IN LASER SCIENCE**

**Purpose:** To recognize outstanding contributions to basic research which uses lasers to advance our knowledge of the fundamental physical properties of materials and their interaction with light. Some examples of relevant areas of research are: nonlinear optics, ultrafast phenomena, laser spectroscopy, squeeze states, quantum optics, multiphoton physics, laser cooling and trapping, physics of lasers, particle acceleration by lasers, and short wavelength lasers.

**Nature:** The prize consists of \$10,000 plus an allowance for travel to the meeting at which the prize is awarded and a certificate citing the contributions made by the recipient. The prize will be awarded annually.

**Establishment & Support:** The prize was endowed by the NEC Corporation in 1991.

**Rules & Eligibility:** Nominations of candidates for this prize can be made by any member of the American Physical Society. Nominations are active for three years.

1997 Prize Selection Committee

H. Jeffrey Kimble, Chair Div of Phys Math & Astro 12-33 Caltech 1201 E California Blvd  
Pasadena, CA 91125 Phone: (818) 395-8340 Fax: 818 793 9506 Email:  
HJKIMBLE@CC.CALTECH.EDU

OTHER COMMITTEE MEMBERS

Duncan Gregory Steel Richart E Slusher Thomas J McIlrath Margaret M. Murnane

## **NATIONAL SCIENCE FOUNDATION**

### **RESEARCH EXPERIENCE FOR UNDERGRADUATES**

The National Science Foundation makes possible a number of opportunities for undergraduates to join research projects each summer. This allows students to experience first-hand how basic research is done, and to

contribute consequentially. The principal support by NSF of such activities is through the Research Experiences for Undergraduates Program. REU "Sites" are established in all fields of science, mathematics, and engineering.

Each Site usually operates for about ten weeks in the summer, and consists of a group of ten or so undergraduates, who work in the research programs of the host institution. Students are in general accepted from throughout the country -- most come from schools other than the host institution. Each student is assigned to a specific research project, where he/she works closely with the faculty, post-docs, and graduate students. In addition, seminars, lunch meetings, and social functions are organized to facilitate interaction between the undergraduates. Students are granted stipends, and in some cases assistance with housing and travel. Women and members of under-represented minorities, and those with disabilities or special needs, are particularly urged to apply. The complete list of these Sites can be obtained at <http://www.nsf.gov/ftp/MPS/letters/reulist.txt>.

The NSF Divisions of Physics, Materials Research, and Astronomical Sciences support a total of over 100 such Sites each summer. Most of these Sites cover a broad range of physics-related subjects, and each Site usually

includes research topics typical of several APS Divisions. The following Sites do have major components in atomic, molecular, optical, laser, and chemical physics:

University of Colorado/JILA Kansas State University National Institutes of Standards and Technology-Gaithersburg University of New Mexico-Los Alamos Rice University University of Connecticut Oklahoma State University SRI International

For more information on the NSF-REU Program contact Rolf M. Sinclair, Program Director for Special Programs, Division of Physics, National Science Foundation, 4201 Wilson Boulevard, Arlington VA 22230

e-mail: rsinclair@nsf.gov

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## **IMPRESSIONS OF 1996 UNDERGRADUATE SUMMER RESEARCH PROJECTS**

John Bloodgood, a University of Delaware student, investigated the photonic band structure of bcc colloidal crystals and his work resulted in co-authorship of an article submitted to Physical Review B with his advisor George Watson and Ranjit Pradhan. John writes: "My investigations were highly productive. ... [In addition to the manuscript] I also plan on making a poster presentation at the 1997 CLEO/QELS conference in Baltimore."

Catherina Glasheen, a senior at Swarthmore College, worked in the laboratories of Thomas Donnelly and Frank Moscatelli. The project, entitled "Investigations of the Time History of the Temperature and Density of Sodium Plasma", involved forming a Na<sup>+</sup> plasma by ablation using a 10 ns YAG laser pulse. Spectroscopic linewidth and other measurements were used to make measurements of electron density and temperature in the plasma. Such a plasma is potentially useful in a recombination-pumped soft x-ray laser.

Seed Money:

Kristin Hogan, a student in the University of Pittsburgh Chemistry Department worked with Prof. David Pratt using a liquid-nitrogen "cold finger" technique to study phosphorescence induced in target molecules by collision with laser-excited benzaldehyde molecules from a pulsed jet. The project is continuing with some photochemical studies of benzophenone derivatives.

Eric Gansen worked in G.R. Sudhakaran's laboratory at the University of Wisconsin-La Crosse on far-IR laser Stark absorption spectroscopy of deuterated methanol. Preliminary results have already been published as a letter co-authored with M. Jackson and Sudhakaran in the J. Molecular Spectroscopy [176, 439-441 (1996)]. He says in his report "I have become aware that I cannot achieve my goals with a classroom education alone. Research is the only way students can see how the knowledge they accumulate in the classroom relates to the development of technology in real life."



John W. Thoman, Jr., Associate Professor of Chemistry at Williams College, reports that his sophomore summer student, James M. Rowe had a successful project, leading to a poster presentation at the ACS National Meeting in August 1996. Rowe's work involved measurements of collisional fluorescence quenching cross sections of the A-state of NO, excited by a YAG-pumped dye laser, by collisions in acetone, ammonia or ethylene vapor. The temperature-dependence of these cross sections was used to elucidate the details of the quenching mechanisms. Thoman's evaluation: "Jim had a productive and instructive summer, as can be seen from his 4-page final report. The \$3600 grant was used entirely to support Jim. My lab has benefited substantially from the summer student support of the [LSTG] ... now the Division of Laser Science; I hope that the program will continue for many years."

#### Interdisciplinary Studies:

Sandra Bonilla presented an interesting report on her collaborative research in the Materials Science Department and the Optical Sciences Center at the University of Arizona. She studied a solid state laser dye material, pyrromethene-BF<sub>2</sub> (pyrromethene-567) in a solgel host with the aim of increasing laser dye photostability. The porosity of the host material was found to have a strong effect on the useful lifetime of the dye. The effect of antioxidants on improving photostability was demonstrated. A research paper is expected to result from the work. Sandra comments: "It was an incredible experience to be part of original research, and it proved to be a very productive Summer."

As this sampling indicates, institutions of various sizes and types received summer student support. Students were at various levels of their undergraduate experience from sophomore up. The degree of progress ranged from giving a student a first task of research to ultimate presentations at meetings and/or publications in top refereed journals. Several disciplines were represented: e.g. physics, chemistry and materials science departments. Interdisciplinary proposals are encouraged but are not a requirement. The experience of the students seems to have been almost universally positive and worthwhile to them.

Winthrop W. Smith

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## CALENDAR

**Photonics West**, 11-13 Feb, 1997, San Jose Convention Center, San Jose, CA. Contact: SPIE's Exhibit Department; (360) 676-3290; fax (360) 647-1445; e-mail [photonics@spie.org](mailto:photonics@spie.org)

### Conference on Lasers and Electro-Optics

**(CLEO '97)**, 18-23 May, 1997, Baltimore, MD. Co-located with the Quantum Electronics and Laser Science Conference (QELS '97). Sponsored by: IEEE-LEOS/OSA in cooperation with EPS-QEO/JQEJG. Technical Meeting, Short Courses, Technical Exhibit.

**Quantum Electronics and Laser Science Conference (QELS '97)**, 18-23 May, 1997, Baltimore, MD. Co-located with the Conference on Lasers and Electro-Optics (CLEO '97). Sponsored by APS-DLS/IEEE-LEOS/OSA. Technical Meeting.

**First International Conference and School on Polarization Effects in Lasers and Spectroscopy Fundamentals and Applications**, 26-28 May 1997, University of Toronto, Canada. Submission deadline: February 1, 1997. For more information, contact: Prof. G.M. Stephan, ENSSAT, 6, rue de Kerampont, 22305 Lannion, FRANCE (fax: 33-96370199; email: stephan@enssat.fr).

**CLEO/Pacific Rim '97** 14-18 July, 1997, Chiba, Japan. Co-located with InterOpto '97. Abstract and Summary Deadline: January 20, 1997. Sponsored by The Japan Society of Applied Physics, IEICE, IEEE-LEOS/OSA, Optoelectronic Industry and Technology Development Association. Technical Meeting, Tutorials, Short Courses, Technical Exhibit.

**ICPEAC XX**, July 23 - 29, 1997, Vienna, Austria.

The twentieth meeting of the International Conference on the Physics of Electronic and Atomic Collisions will be held July 23 - 29, 1997 in Vienna, Austria. Further information may be obtained from Prof. HP. Winter, Institut fuer Allgemeine Physik, TU Wien, A-1040 Wien, Austria. FAX +43-1 5864203; e-mail ICPEAC97@iap.tuwien.ac.at Homepage: <http://www.iap.tuwien.ac.at/icpeac97/>.

**OSA '97 Annual Meeting**, 11-17 Oct, 1997, Long Beach, CA. Co-located with ILS-XIII. Abstract Deadline: May 1, 1997. Technical Meeting, Tutorials, Engineering "How To" Program, Short Courses, Technical Exhibit (Technical Exhibit sponsored by: OSA\Photonics Spectra).

### **Interdisciplinary Laser Science Conference**

**(ILS-XIII)**, 11-17 Oct, 1997, Long Beach, CA. Co-located with the OSA Annual Meeting. Abstract Deadline: May 1, 1997. Sponsored by APS-DLS, in cooperation with OSA. Technical Meeting.

### **Minutes of the Executive Committee**

### **Meeting of the Division of Laser Science**

**June 4, 1996**

### **Anaheim, California**

The meeting was called to order by the DLS Chair-Elect Joe Eberly (in the absence of Chair Pat Dehmer) at 12:00 noon in the Anaheim Marriott Hotel. The meeting was held in conjunction with the Conference on Lasers and Electro-Optics (CLEO) and the Quantum Electronics Conference (QELS). Other Executive Committee (EC) members present were

Vice-Chair Paul Houston, Secretary Treasurer John Miller, Members-at-Large John Weiner, Wendell Hill III, and Naomi Halas, and Divisional APS Representative Dan Grischkowsky. Chair Pat Dehmer, Past Chair Carl Lineberger, and Members-at-Large Bill Cooke, Paul Kleiber, and Mike Raymer were absent.

Tom McIlrath, Gary Eden, and Ian Walmsley were present as non-voting ex officio members of the EC (representing the Joint Council on Quantum Electronics) as were Jag Shah and Richart Slusher (representing the ILS Conference Committee). New Newsletter Editor James Wicksted was not present. Eberly expressed the regrets of Pat Dehmer who could not attend and conveyed her appreciation for the efforts of others, in helping her with the management of DLS affairs. He also congratulated Dan Grischkowsky on his recent election as the DLS Representative to the American Physical Society. In addition, he announced the appointment of James Wicksted as the newsletter editor, replacing Roger Becker who had served in the capacity for the previous three years. By unanimous declaration, those present thanked Becker for his excellent performance during his tenure.

## **Membership**

Miller reported the official membership statistics as of December 31, 1995. The DLS membership stands at 1363 which represents 3.34% of the APS total. A brief discussion concerning recruitment of chemists, electrical engineers, and other non-physicists was held. Grischkowsky outlined the techniques used in the successful membership drive which he had directed over the previous two years. It was noted that attention to membership was required to ensure continued division status.

## **Finances**

Miller presented and briefly explained the April financial statement. Discussion focussed on the DLS payment of \$2,000 annually as dues to the International Commission on Optics (ICO). McIlrath, a current member of the U.S. Advisory Committee to the ICO (along with Bill Cooke and Michael Loy) described the activities of the ICO and the benefits of DLS involvement. Miller presented the minutes of the last ICO meeting where it was noted that the APS members (appointed by DLS) had not been active recently. General discussion centered on the benefits to the APS of participation in the ICO and the appropriateness of the DLS as the responsible division within the APS. It was pointed out that DAMOP was also potentially an interested party. Eberly will initiate further discussions with the APS and DAMOP on these issues.

## **Committee Reports**

Schawlow Prize - McIlrath reported that Theodor Hdnsh was the winner of the 1996 prize, was awarded at the Rochester ILS meeting. The current prize committee, headed by Jeffrey Kimble, consists of Tom McIlrath, Duncan Steel, Richart Slusher, and Margaret Murnane.

Fellowship Committee - Paul Houston, Chair, reported that five DLS members had been named to the status of Fellow. It was noted that very few nominations for DLS members were received last year and strategies for increasing the number were discussed. Other committee members

are Wayne Itano, Phil Bucksbaum, Andy Tam, and Anthony Johnson. Committee member terms and succession procedures were briefly discussed.

Nomination Committee - Tom McIlrath, Chair, reported the following candidates have agreed to stand for election to the DLS EC: Vice-Chair, Bill Phillips, and Tom Gallagher; Secretary/Treasurer, Winthrop Smith and Stephen Pratt; Members-at-Large, John Carlsten, Thomas Mossberg, Steve Rolston, and Doreen Weinberger. Other members of the committee included Ray Garrett, Andy Tam, Harold Metcalf, Neal Abraham, and Elsa Garmire.

### **Newsletter**

Miller distributed a draft copy of the Summer newsletter and thanked past and future contributors for cooperation and attention to deadlines.

### **Distinguished Traveling Lecture Program**

The current committee is composed of Mike Raymer, (Chair) Neal Abraham, and Paul Kleiber. No report was presented.

### **Undergraduate Summer Research Program**

Naomi Halas, Chair, reported that grants totaling \$19,750 had been awarded to seven institutions (one grant was returned as the student withdrew from the program for personal reasons). Two awards went to alternates following notification that the students had accepted other research arrangements. Discussions centered on the competitiveness of the DLS grant versus other similar grants and whether or not to increase the award amount. Decisions were deferred to the Rochester meeting when next year's awards will be authorized. Other committee members are Geraldine Richmond and Wendell Hill.

### **Student Travel Grants**

Miller reported that only three travel awards to CLEO had been granted (there were four requests) and noted that considerably more requests were usually received for the ILS meeting.

### **Joint Council for Quantum Electronics**

McIlrath reported that attendance at CLEO/QELS was up from previous years and that the LEAP program appeared successful. As the JCQE meeting was to be held the next day he had no further report.

### **Interdisciplinary Laser Science (ILS) Conference**

Weiner summarized the status of the upcoming Rochester ILS-XII Conference. Some discussion ensued concerning details of the Schawlow lecture, banquet/reception, and DLS "celebration dinner." Funding from the ACS-PRF for \$2,000 had been recommended and proposals to NSF, AFOSR, and ONR are pending.

Shah requested that council approve \$14,000 in funding for the ILS-XIII conference providing a safety net while agency proposals are being considered. Because of the lack of a quorum, voting was deferred to a later e-mail ballot [approved by e-mail ballot]. A slot of potential candidates for the new Vice-Program Chair was submitted for EC approval. [Approved by e-mail ballot].

### **Committee Appointments**

Miller summarized the 1996-97 committee compositions. He discussed the need for a more systematic approach to committee appointments and succession procedures. It was suggested that the educational committees be comprised of EC members at large who would step through a sequence of Vice-Chair, Chair, and Past-Chair during their three year term. A summary of duties and deadlines should be prepared for each committee. It was generally agreed that the DLS committee structures and responsibilities were sufficiently mature and stable and that more systematic procedures would be helpful to all concerned. Committee chairs were asked to prepare activity summaries and time lines for their committees. Miller will coordinate such an effort for the DLS Chair and Secretary/Treasurer.

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## **Minutes of the Executive Committee Meeting of the Division of Laser Science**

**October 23, 1996**

### **Rochester, New York**

The meeting was called to order by DLS Chair-Elect Joe Eberly (in the absence of Chair, Pat Dehmer) at 12:15 p.m. in the Rochester Holiday Inn Hotel. The meeting was held in conjunction with the Interdisciplinary Laser Science Conference (ILS-12) and the annual meeting of the Optical Society of America. The ILS conference constitutes the annual meeting of the DLS. Other Executive Committee (EC) members present were Vice-Chair Paul Houston, Secretary-Treasurer John Miller, Past Chair Carl Lineberger, Divisional APS Councillor Dan Grischkowsky, and Members-at-Large John Weiner, Wendell Hill III, Paul Kleiber, and Mike Raymer (Bill Cooke and Naomi Halas were absent). Newsletter Editor Jim Wicksted was present. Ian Walmsley and Gary Eden (for Rick Freeman), representing the Joint Council on Quantum Electronics were present as non-voting *ex officio* members of the EC, as were Marsha Lester, John Weiner, and Dick Slusher representing the ILS conference committee.

Lorenzo Narducci, Associate Editor of Physical Review A, and Don Levy, Associate Editor of the Journal of Chemical Physics were present by invitation.

Newly elected EC members Bill Phillips, Win Smith and Tom Mossberg were also present by invitation as were Tom McIlrath and Bill Stwalley.

### **Election Results**

Eberly announced the election of Bill Phillips as the incoming Vice-Chair, Win Smith as the new Secretary-Treasurer and Doreen Weinberger and Tom Mossberg as new Members-at-Large of the DLS Executive Committee. Their term of office begins at the conclusion of the ILS-12 conference. Eberly thanked outgoing members Miller, Lineberger, Cooke, Weiner, and Lester for their service and leadership on behalf of the DLS.

## **DLS Business**

Laser Science Journals - Representatives were present from a number of core journals of the laser science community. These included Narducci (Physical Review A), Levy (Journal of Chemical Physics), Houston and Miller (Journal of Physical Chemistry) and Lineberger (Chemical Physics Letters). Eberly asked those representatives to briefly describe these journals and editorial policy and suggest ways that the DLS membership could interact in fruitful ways - as associate editors, reviewers, and authors. Narducci, Levy, and Houston each welcomed nominations from the EC or its members for editorial positions and explained their policies in choosing such persons. Lineberger noted that Chemical Physics Letters had no women in such positions and encouraged suitable nominations to be sent to the editor. Houston mentioned the expansion of the Journal of Physical Chemistry and their use of topical issues and feature articles. Some discussion of electronic publishing and its impact also ensued. Miller suggested similar interaction with OSA journal editors at future meetings.

Future EC Meeting Format - Eberly announced a new format for the next EC meeting to be held at the CLEO/QELS conference in the spring of 1997. Patterned after meetings by other divisions, the agenda would include a brief "closed-door" session of the EC followed by a dinner meeting where representatives of funding agencies or important committees like CAMOS or COSE could summarize important issues relevant to the DLS membership. Weiner suggested that issues requiring extended discussion take place in sub-committee meetings or, phone or e-mail conferences, and then be briefly summarized for the full EC. Miller briefly discussed problems with the annual business meetings (required by our by-laws), and suggested that more attention be paid in the future to scheduling and attendance.

## **Finance**

Miller presented the year-end financial summary. Discussion about the role of the DLS and APS in the payment of the annual \$2,000 dues to the International Commission on Optics (ICO) was spirited. McIlrath briefly explained the issues and pointed out that OSA, APS, SPIE, and LEOS jointly fund the activities of the ICO. He discussed the upcoming 1999 conference in San Francisco which would be hosted by the US members of the commission. A motion to continue payment of dues until the 1999 meeting was presented, seconded, and passed by voice vote. At that time a decision about future payment would be considered. Eberly needs to appoint new APS representatives and charge them with more active participation in the future.

## **Committee Reports**

Schawlow Prize - McIlrath reported that the 1997 winner had been selected but that the winner's name could not yet be released.

Fellowship Committee - Houston reported that five new fellows were nominated from the DLS. As in past years, it was noted that the number of nominations received was low and that more attention should be given to soliciting future nominations. Houston has recommended sending letters to all current Fellows to solicit new nominations. Lineberger suggested that each EC member be solicited for 2-3 nominations. The current committee, chaired by Houston, consists of Wayne Itano, Andy Tan, Phil Bucksbaum, and Anthony Johnson. Bill Phillips, new DLS Vice-Chair, will head next years Fellowship Committee.

### **Newsletter**

Wicksted reported the status of the newsletter. He is currently accepting material for the fall newsletter. He presented a possible new logo and was authorized to reimburse the artist up to \$300, if necessary. Increasing use of the World Wide Web was discussed along with the possibility of future electronic mailings of newsletters.

### **Distinguished Traveling Lecturer (DTL) Program**

Raymer, DTL Chair, presented a written report summarizing the current program. Last year's cycle generated three completed visits and 5-6 more in progress. For next year eight visits are projected with three already planned. A motion authorizing \$15,000 for the next year was passed. Other committee members were Neal Abraham and Kleiber.

### **Undergraduate Summer Research Program**

Miller presented a report in the absence of Halas, the current Chair. Final reports have been received from last summer's winners and brief summaries will be published in the newsletter. A motion to authorize \$24,000 for next year's program was passed. Other committee members were Geraldine Richmond and Wendel Hill, III.

### **Student Travel Grants**

Miller reported that he had served as the coordinator for this program in the absence of a current committee. He recommended that in the future, for logistical reasons, the Secretary-Treasurer should handle all travel grant requests with the assistance of an *ad hoc* committee drawn from the Secretary/Treasurer home institution, if possible. For the ILS meeting 10 travel grants were approved for a total of \$5,480. The year's total was 13 grants for \$7,580. A motion to authorize \$12,000 for next year was approved.

### **Joint Council for Quantum Electronics**

Eberly presented a brief report on behalf of Walmsley who was absent at that time.

### **Interdisciplinary Laser Science Conference**

Lester presented a report on conference funding. A total of \$14,000 was received from NSF-Physics, ARO, ACS-PRF, Spectra Physics and Continuum. Much of the funding was slated for

student or foreign speaker support. Some unspent funds remained and Lester will request a no-cost extension allowing the funds to be used for ILS-13. There was discussion on enhancing the conference for students and post docs by including sessions as jobs, resumi writing, etc. A proposal to underwrite free registration for students will be investigated.

### **Other Business**

Houston requested \$3,000 to fund DLS participation in the APS March meeting. The funding was approved. Hill requested \$1,000-2,000 for participation in "Congressional Day" during the April APS/DAMOP Washington meeting. The request was approved.

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### **DEADLINES**

Distinguished Lecturer Applications (Fall 1997): 17 January 1997

CLEO/QELS Student Travel Grants: 7 March 1997

ILS-XIII/OSA Student Travel Grants: 15 August 1997

Fellow Nominations: 1 April, 1997

OSA '97 & ILS Abstracts: 1 May, 1997

Distinguished Lecturer Applications (Spring 1998): 15 June 1997

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#### **JOIN THE DIVISION OF LASER SCIENCE**

The Division of Laser Science (DLS) is a subunit of the American Physical Society (APS) specifically concerned with the use of lasers in science, the application of lasers in technology, and the interests of the laser community within the APS.

#### **The DLS**

- Promotes laser interests within the APS and represents such interests with other societies.
- Sponsors awards and educational program, including a Distinguished Traveling Lecturer Program aimed at four-year institutions.
- Cosponsors the Interdisciplinary Laser Science (ILS) and Quantum Electronics and Laser Science (QELS) Conferences.

#### **Benefits of Membership**

- Summer research fellowships for undergraduate students sponsored by DLS members.



- Travel grants to the ILS and QELS for graduate students sponsored by DLS members.
- The DLS Newsletter, a valuable source of information related to your profession.
- A route to APS Fellowship.
- Influence of the Laser Science actions in APS.

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