

The American Physical Society

Division of Electron and Atomic Physics

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TO MEMBERS OF THE DEAP from Tom Miller

I. Memorial to Jim McDonald

The DEAP has lost a young and productive researcher and friend, Jim McDonald. He had been a leader recently in the efforts of the Accelerator Physics Panel and had reported on this work at our Houston meeting. At the request of the family, a James R. McDonald Scholarship Fund has been initiated at the Kansas State University Foundation. Gifts in memory of Jim may be made through the Foundation, Kansas State University, Manhattan, KS 66506. The family will be notified of your gift.

II. Report on the 1979 DEAP Meeting at Houston

The annual meeting, held at the Shamrock Hilton Hotel in Houston, was a success. There were 392 registrants, with 234 contributed papers and 20 invited papers. The first two figures represent a considerable increase over previous years. The banquet at the Rice University Faculty Club was attended by about 275 persons. We all thank King Walters and his colleagues at Rice University, Barry Dunning, Ron Stebbings, and Sandy Mitchell, for their efforts in arranging this meeting.

III. APS March Meeting, New York (24-28 March 1980)

1. The DEAP is sponsoring three symposia, with the speakers listed:

A. High-Resolution Spectroscopy - Theory and Experiment (organized by Earl McDaniel).

G. K. Walters, "Time-Resolved Spectroscopy of Rare-Gas Excimers Excited by Synchrotron Radiation."

W. G. Harter, "New Understanding from High-Resolution Spectra of Polyatomic Molecules - Spontaneous Molecular Symmetry Breaking."

R. S. McDowell, "High-Resolution Vibrational Spectroscopy Using Tunable Lasers."

B. Synchrotron Radiation and Other Probes of Atomic and Molecular Structure (organized by S. Doniach).

D. A. Shirley, "Resonance Autoionization in Gases."

I. Lindau, "P-Shell Photoabsorption in Transition Metals."

F. Read, "Electron-Atom Scattering."

J. Dehmer, "Theory of Photoabsorption and Electron Scattering in Molecules."

C. Chemical Effects in Ion-Atom Collisions (organized by Stephen Shafroth).

D. S. Gemmel, "Stereochemical Structures of Molecular Ions Determined through 'Coulomb Explosion' Techniques with Fast (MeV) Molecular-Ion Beams."

R. L. Watson, "Environmental Influences on X-Ray Emissions in Heavy Ion Collisions."

K.-O. Groeneveld, "Auger-Electrons from Molecular Break-Up."

G. A. Bissinger, "Chemical Effects on K-X-Ray Yields in Ion-Atom Collisions."

2. The APS Publications Committee will meet on 22 March. The major item on their agenda is the splitting of Physical Review Letters into five separate parts, as proposed by the editor, Robert Adair, in an editorial in the 31 December 1979 issue. The DEAP Executive Committee does not view this as a desirable move. However, there seems to be strong support for the proposal from divisions whose members tend to regard Physical Review Letters as a primary journal. The DEAP representative on the APS Publications Committee, Patricia Dehmer, wishes to hear from DEAP members regarding the proposal, prior to the March meeting. Her address is Argonne National Laboratory, 203-C153, Argonne, IL 60439.

IV. APS Spring Meeting, Washington, DC (28 April - 1 May 1980)

Please note that the Spring Meeting is being held one week later than has been previously indicated in the Bulletin.

1. The DEAP will sponsor three symposia, with the speakers listed.

A. Atomic Inner-Shell Hole States (organized by Bernd Crasemann).

J. P. Briand, "Double-Hole States."

M. H. Chen, "Relativistic Effects in Atomic Inner-Shell Level Widths."

R. D. Deslattes, "Precision Measurements of Atomic Inner-Shell Level Energies."

W. R. Johnson, "Quantum-Electrodynamic and Relativistic Effects in Inner-Shell Level Energies."

B. New Frontiers on the Intersection of Atomic and Nuclear Physics (organized by Henry Stroke).

O. Redi, "What is High-Resolution Atomic Spectroscopy Revealing about Nuclear Structure?"

G. W. Greenlees, "High Sensitivity Laser Spectroscopy for Radioactive Atoms."

H. A. Schuessler, "Laser Spectroscopy On-Line with Accelerators."

J. Speth, "Theoretical Description of Magnetic Properties of Atomic Nuclei."

F. Iachello, "The Interacting Boson Model of the Nucleus and Its Application to Isomer and Isotope Shifts."

C. Symposium on the Contributions of L. H. Thomas to Physics (organized by Eugen Merzbacher).

V. L. Telegdi, "From Thomas to BMT: The Story of a Fruitful Plagiarism."

R. Shakeshaft, "The Thomas Model for Electron Capture from Atoms by Fast Ions."

J. R. Richardson, "The Thomas Cyclotron - from an Idea to Heavy Ions and Meson Factories."

M. C. Gutzwiller, "Shock Waves and Fluid Dynamics - the Thomas Years at the Watson Lab."

L. Spruch, "The Thomas-Fermi Atom and Some of Its Ramifications."

2. The DEAP Executive Committee will meet on Sunday evening, 27 April. The agenda for this meeting consists of routine reports and the question of changing the time-of-year of the DEAP meeting. The members of the Executive Committee would appreciate hearing from persons interested in possibly hosting the annual meeting at some point in the future (in ERA states!). The Executive Committee consists of Bernd Crasemann, Mitio Inokuti, Hugh Kelly, Dan Kleppner, Eugen Merzbacher, Tom Miller, Eugene Rudd (chairperson), Win Smith, and Ron Stebbings.

3. The DEAP Program Committee will meet at noon on Monday, 28 April. Symposia and invited speakers for our 1980 annual meeting as well as for several APS meetings through April 1981 will be decided on. DEAP members are urged to provide suggestions to one of the members of this committee: George Basbas, Donal Burns, Tu-Nan Chang, Robert Compton, Bernd Crasemann (chairperson), Patricia Dehmer, Gordon Dunn, David Golden, Edward Hinds, Walter Johnson, Quentin Kessel, Daniel Larson, Steven Manson, Eugen Merzbacher, Walter Meyerhof, John Moseley, Richard Pratt, Patrick Richard, Roberta Saxon, and Howard Shugart. The Program Committee will also discuss how to best handle the large increase in the number of papers contributed to the DEAP annual meeting, in the future.

4. The DEAP Nominating Committee will meet at noon on Tuesday 29 April. The chairperson of the committee is Steve Smith. Serving on the committee will be Ivan Sellin and two other persons yet to be named. The committee will select a slate of candidates to be presented to the DEAP membership later in the year. The committee will select new candidates for the positions of vice-chairperson, secretary-treasurer, and one Executive Committee position, and will consider the nomination of the present vice-chairperson for the chairpersonship. The committee members wish to receive suggestions for these offices. Steve Smith's address is JILA, University of Colorado, Boulder, CO 80309.

V. Fellowship Committee

Eugene Rudd has appointed a DEAP Fellowship Committee for 1980 to make recommendations to the APS Council on fellowship nominations. The chairperson of the committee is Aaron Temkin. The other members are Gordon Dunn, Hugh Kelly, and Ivan Sellin. Nominations supported by two APS members may be sent through APS channels or directly to Temkin at NASA Goddard Space Flight Center, Code 680.1, Greenbelt, MD 20771.

VI. 1980 DEAP Annual Meeting at Los Angeles

The Twelfth Annual DEAP Meeting will be held at the Conference Center of the University of Southern California on 1-3 December 1980. G. L. Weissler is heading the local committee. Participants will be housed at the University Hilton and at the Vagabond Motor Hotel, both located close to the conference center. A reception will be held on 30 November. A banquet will be held on Tuesday evening. Provisions will be made for interested persons to tour the University laboratories. Forms for preregistration and hotel reservations will be mailed with the next newsletter. Abstracts for contributed papers (one original and two copies for each paper) should be sent to the DEAP Program Committee chairperson, Bernd Crasemann, at the address given on the letterhead. The deadline will be early in September.

The 1981 DEAP annual meeting will be in New York City, Thursday through Saturday, 3-5 December. The 1982 DEAP annual meeting will be in Boulder, Colorado, from 29 November through 1 December. *Changed to May*

VII. Other Meetings

1. 1980 Physical Electronics Conference. The 40th Annual Physical Electronics Conference will be held at Cornell University on 16-18 June 1980. The abstract deadline is 2 May. Interested persons may contact T. N. Rhodin or R. P. Merrill, 217 Clark Hall, Cornell University, Ithaca, NY 14853.

2. 7th International Conference on Atomic Physics. The 7th ICAP will be held at the Massachusetts Institute of Technology on 4-8 August 1980. Participants will be housed in MIT dormitories and at nearby hotels. Contributed papers will be presented in poster sessions; the abstract deadline is 1 May. Interested persons may contact Daniel Kleppner (MIT) or F. M. Pipkin (Harvard). Kleppner's address is Room 26-235, MIT, Cambridge, MA 02139.

3. 33rd Gaseous Electronics Conference. The 1980 GEC will be held in Norman, Oklahoma, on 7-10 October, with the University of Oklahoma acting as the host. R. M. St. John is the local chairman.

4. 6th Conference on the Applications of Accelerators in Research and Industry. The 1980 meeting will be held in Denton, Texas, at North Texas State University on 3-5 November. The deadline for submission of abstracts of contributed papers is 1 July. Further information may be obtained from J. L. Duggan, Physics Department, North Texas State University, Denton, TX 76203.

VIII. Time-of-Year of the DEAP Annual Meeting

A subcommittee of the DEAP Executive Committee reported at the Houston meeting on a study of the time-of-year at which the DEAP meeting might be held. The subcommittee consisted of Eugene Rudd, Patricia Dehmer, Bob Hill, and Tom Miller. The present early December date has often been criticized as (a) interfering with the end of the university semester, (b) being too close to a holiday season with associated travel difficulties, and (c) frequently involving poor weather. The subcommittee examined other possible dates. The major obstacles in finding an alternative date are (a) conflicts with APS general meetings including the new October meeting, (b) conflict with the Gaseous Electronics Conference, also in October, (c) conflicts with various summertime symposia and international meetings, and (d) conflict with the beginning and end of university semesters, particularly in September, December, May, and June. The subcommittee examined all aspects of this problem including the feasibility and desirability of meeting jointly with the GEC or at one of the APS general meetings, and in the end decided to recommend to change the date of the DEAP annual meeting to the third week in May (three days in the period 20-26 May) beginning in 1984. Consideration of university calendars revealed that by the third week in May, universities which begin their academic year in late August have finished, while those universities which begin their academic year late in September have not yet entered their final week of classes. There are a few exceptions such as MIT. The university conflict is important because about 84% of the DEAP attendees are from US or Canadian universities. One side benefit of holding the annual meeting outside of the academic year of as many universities as possible is that inexpensive housing and meeting rooms become available for us, simplifying arrangements for the local committee and increasing interaction of the conferees with the hosts. This important point has been emphasized by our JILA hosts (who were originally considering either December 1982 or May 1983) and by the University of Connecticut, which has expressed interest in hosting a future meeting.

The DEAP Executive Committee endorsed the report of the subcommittee, but did not feel confident of making a final decision without hearing from all DEAP members who attend or wish to attend the annual meetings. Therefore, a postcard is enclosed with this newsletter for the purpose of advising the Executive Committee in regard to the suggested change of the meeting date to the third week in May. The Executive Committee will discuss the matter again in April at the APS Spring Meeting and will probably make a final decision. The results of the referendum and the Executive Committee action will be reported in the May newsletter.

Please enclose an unstamped postcard with each of the February 1980 DEAP newsletters,
with the following printed on the front and back of the postcard:

REFERENDUM

I prefer that the DEAP annual meeting

be held at its present early December date every year.

be moved to a three-day period within 20-26 May.

(Check one.)

COMMENTS:

BACK:

FRONT:

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