

The American Physical Society

Division of Electron and Atomic Physics

HENRY M. FOLEY, *Chairman*
Department of Physics
Columbia University
New York, N.Y. 10027

G. KING WALTERS, *Vice-Chairman*
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Rice University
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University of Massachusetts
Hasbrouck Laboratory
Amherst, Mass. 01002

BALLOT

Division of Electron and Atomic Physics

The names listed below are presented by the nominating committee for the office of Executive Committeeman. Please register your vote by marking the appropriate box. The vitae of the candidates are summarized below.

Executive Committeeman (3 year term). Vote for one.

☐ Roy H. Garstang
(University of Colorado)

☐ Aaron Temkin
(NASA-Goddard)

Return your ballot to the Secretary-Treasurer in the enclosed envelope.
Sign the envelope in the upper left-hand corner.

Deadline for receipt of ballots is November 10, 1972.

GARSTANG, ROY H., 46. B.A. 1946, M.A. 1950, Ph.D. 1954, Cambridge University. Jr. Scientific Officer 1945-6, Royal Aircraft Estab. Scientific Officer 1946-8, British Ministry of Works. Research Assoc. 1951-2, Yerkes Observatory, Chicago. Lecturer in Astronomy 1952-60, Reader 1960-4, Asst. Director of Observatory 1959-64, University College, London. Professor of Astrophysics 1964-, University of Colorado. Visiting Scientist 1961-2, Consultant 1964-, National Bureau of Standards. Chalklin Memorial Lecturer 1971, Royal Society of New Zealand. Corresponding Member 1969, Royal Society of Sciences, Liege. Fellow of Opt. Soc., Am. Astron. Soc., Royal Astron. Soc., British Inst. of Physics, British Astron. Assn., Royal Statistical Soc., Royal Astron. Soc. of Canada. Editor 1953-60, Observatory Mag. Astronomy Advisory Editor 1960-, Chambers Encyclopedia. Vice President, Commission on Fundamental Spectroscopic Data and Chairman, Committee on Transition Probabilities, both of International Astronomical Union. Vice President 1957-60, 1963-4, British Astron. Assn. Spectroscopy, spectral line intensities, forbidden transitions, spectroscopy of the sun, stars and planetary nebulae.

TEMKIN, AARON, 42. B.S. 1951, Rutgers. Ph.D. 1956, M.I.T. Fulbright Fellow 1956-7, Germany. Physicist 1957-60, US Naval Research Lab. Senior Physicist 1960-, NASA-Goddard Space Flight Center. Goddard Study Fellowship 1967, University College, London. NASA Outstanding Performance Award. Advisory Editor, Case Studies in Atomic Collisions. Charter Member of General Committee, Int. Conf. on the Physics of Electronic and Atomic Collisions. Program Committee and Nominating Committee, DEAP. Electron scattering from atoms and molecules, symmetric Euler angle decomposition of the three-body problem, polarized orbitals, autoionizing states, optical potential methods, quasi-projection operators, ionization thresholds.

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1972 III

TO MEMBERS OF THE DEAP from Francis Pichanick

- Contents
1. EXECUTIVE COMMITTEE BALLOT. (Separate sheet), please
vote promptly.
 2. 1973 Executive Committee
 3. 1972 Annual Meeting
 - a) Program;
 - b) Arrangements;
 - c) Pre-registration form (separate sheet);
 - d) Hotel reservation form (separate sheet).
 4. News of the Division

2. 1973 Executive Committee

The executive committeeman position is being contested and details are on the accompanying ballot. The remainder of the 1973 committee is as follows:

<u>One Year Term:</u>	Chairman	- King Walters Rice University
	Immediate Past Chairman	- Henry Foley Columbia University
	Vice-chairman	- Arthur Schawlow Stanford University
	Secretary-Treasurer	- Francis Pichanick University of Massachusetts

Divisional Councillor until Dec. 1974: Ron Geballe, University of Washington.

Executive Committeemen (terms expiring on the months indicated):

Bill McGowan University of W. Ontario	December 1973
Thor Rhodin Cornell University	December 1974

In addition the chairman may appoint two committeemen for one-year terms.

Retiring are Felix Smith (Stanford Research Institute, Immediate Past Chairman), Stephen Berry (Chicago), Keith Jefferts (Bell) and Howard Shugart (Berkeley), executive committeemen.

2. 1972 Annual Meeting at Stanford Research Institute,
November 29 - December 1

In the opinion of your secretary-treasurer an outstanding program has been arranged for this meeting. We hope as many members as possible attend; please use the enclosed pre-registration and hotel reservation forms. Contributed papers, with abstracts in the format as described near the back of any issue of the APS Bulletin, may be sent to King Walters, Physics Department, Rice University, Houston, Texas 77001. The deadline is September 8, and you still may have time to act.

The program of symposia and invited papers is as follows:

Symposia

(I) Picosecond Spectroscopy, Strong Fields
 (Carl Lineberger, organizer)

1. The Radiation Pressure of Laser Light,
A. Ashkin, Bell Labs.
2. Picosecond Time-Resolved Absorption Spectroscopy,
G. E. Busch, University of Colorado.
3. Coherent Optical Spectroscopy,
R. G. Brewer,
IBM, San Jose.
4. Probing Excited States by Two-Photon Ionization,
R. Stephen Berry, Chicago.

(II) Beam-Surface Interactions
 (Russ Young, organizer)

1. Reactive Scattering of Thermal Beams from Surfaces,
R. J. Madix, Stanford University.
2. The Production of Optical Radiation in Particle-Surface Collisions,
Clark W. White and Norman H. Tolk, Bell.
3. The Bombardment of Solid Surfaces with Low-Energy Ions,
H. F. Winters, IBM, San Jose.
4. Atomic and Molecular Scattering from Solid Surfaces:
Non-Reactive Scattering,
R. P. Merrill, Berkeley.

(III) Plasma Diagnostics
 (Ben Bederson, organizer)

1. The Spectroscopic Measurement of High-Frequency Electric Fields
in Plasmas by the Combined Zeeman and Stark Effects,
W. S. Cooper, Lawrence, Berkeley.

2. The Use of Ion and Neutral Beams for Probing Plasmas,
Howard H. Brown, Jr., New York University.
3. Electron-Atom or -Ion Collisions and Spectral Line Broadening,
Hans R. Griem, Maryland.
4. Excited Atomic and Molecular Systems for Neutral Injection
into Plasmas,
J. R. Hiskes, Lawrence Livermore.

(IV) Comprehensive Collision Theory,
(Neal Lane and Felix Smith, organizers)

1. Introduction: The Semi-Classical Approximation,
F. T. Smith, SRI.
2. The Use of the Glauber Approximation in Atomic Collisions,
E. Gerjuoy, Pittsburgh.
3. The Theory of Potential Curve Crossing in Atomic and
Molecular Collisions,
John B. Delos, William and Mary.
4. Collisions and Spectra by the Quantum Defect Method,
U. Fano, Chicago.

(V) Interstellar Molecules and Quasars,
(Alex Dalgarno, organizer)

1. The Interpretation of the Spectra of Quasars,
Christopher F. McKee, Harvard.
2. Ionization Equilibria in the Interstellar Medium,
Jon C. Weisheit, Lawrence Livermore.
3. Interstellar Molecules,
B. Zuckerman, Berkeley.

(VI) Exotic Atoms,
(Francis Pichanick, organizer)

1. Atomic Physics of Muonic Atoms,
Herbert L. Anderson, Chicago.
2. Kaonic Atoms,
C. E. Wiegand, Lawrence Berkeley.
3. Anti-Atomic Physics,
J. N. Bardsley, Pittsburgh.
4. Atom-Antiatom Rearrangement Collisions Involving Nucleonium
Production,
D. L. Morgan, Jr., Yale

5. Quantum Electrodynamics in Super-Heavy Atoms,
Glen Erickson, Davis.

Invited Papers

- (I) Heavy-Ion Energy-Loss Spectrometry,
John T. Park, Missouri-Rolla.
- (II) Beam Foil Spectroscopy: Advances and Applications,
John O. Stoner, Jr., Arizona.
- (III) The Measurement of Atomic Parameters of Optically Inaccessible States
of Alkali Atoms by Cascade-Fluorescence Spectroscopy,
Rajendra Gupta, Columbia.

Arrangements for the Meeting

The conference hotel will be the Cabana Hyatt House in Palo Alto. Registration will be held at this hotel on Tuesday evening until 11:00 p.m. The Cabana is located five miles from SRI, and unfortunately no public transportation is available. Three motels that are within walking distance are listed on the accompanying hotel reservation form near the back of this issue. Only a limited number of rooms are available at these motels, and those desiring them should make their reservations early. If you plan to have a rental car during the meeting, lodging at the Cabana or Rickey's is recommended.

Pre-registration will greatly facilitate the smooth functioning of this meeting, will save you time and money, and will make available a maximum of services to registrants. The fee for pre-registration through November 15 is \$14. Thereafter the fee is \$17. The fee for unsupported students is \$2. Please use the accompanying pre-registration form.

Public transportation from San Francisco International Airport to Palo Alto is very poor, and taxi fare is expensive (about \$22). A limousine (bus) does leave the airport at 3:00 and 7:05 p.m. and stops at Rickey's Hyatt House, across the street from the Cabana, in Palo Alto. If there is sufficient demand, we can provide bus service from the airport to all hotels and motels listed, at a cost of \$2.50 per person. Departure times will be arranged to accommodate as many as possible, with a minimum of two departures between 7:30 and 10:00 p.m. A similar service can be provided following the meeting to return to the airport with buses leaving SRI between 12:30 and 3:00 p.m., depending on demand. It will be necessary to make paid reservations for this service by October 30. The pre-registration form near the back of this issue can be used for that purpose.

A banquet will be held in the International Building at SRI on Wednesday evening. The facilities and food here are excellent, and we anticipate having an outstanding speaker. The cost for this banquet which is partially subsidized by the division, is \$5.00 for registrants, \$6.00 for guests. A maximum of 260 persons can be accommodated, and we

suggest that you purchase your ticket as early as possible by using the pre-registration form.

We can provide an interesting Ladies Program if there is sufficient interest. Please indicate interest on the pre-registration form, and details will be provided.

The Business Meeting will be on the morning of November 30. Included in the proceedings will be an address by Ben Bederson in which he will summarize the reaction of Federal Agencies to the report of the NAS-NRC Committee on Atoms and Molecules.

The local committee for the meeting is headed by Felix Smith (Chairman), John Moseley (Secretary) and Ron Olson (Treasurer).

4. News of the Division

We have scheduled the following contributions to general meetings of the APS.

(a) Winter Meeting in the West, Los Angeles, December 27-29, 1972

Gerhard Weissler is representing us on the organizing committee and he is arranging a symposium.

(b) Annual Meeting in New York, January 29-February 1, 1973

Jens Zorn is arranging a symposium jointly with the AAPT with the idea of stimulating interest in electron and atomic physics among the teaching community. In addition we are co-sponsoring, with the Division of Chemical Physics, a symposium on chemical lasers.

(c) San Diego, March 19-22, 1973

Alex Glass is organizing a symposium on semiconductor lasers and Raman spin-flip devices.