



The 1978 Apker Award finalists. From left to right: Tony Heinz (Stanford), Elizabeth Mann (Case Western Reserve), David Heckerman (winner, UCLA) and Daniel Stearns (University of Michigan).

K. Mann, Tony F. Heinz and Daniel G. Stearns. Mann offered for judging the results of her undergraduate research at Case Western Reserve University on "The Neutral Excitation Current in Liquid Helium." She is currently doing graduate work in physics at the University of Illinois.

Heinz, who is now doing graduate work in physics at the University of California, Berkeley, submitted a research paper on "Topological Properties of Orthostochastic Matrices," done while he was an undergraduate at Stanford University. Stearns submitted a report of work on "Determination of the Differential Cross Section for Excitation of Neon to the 3P_2 State Using Metastable-Scattering Angular-Distribution Analysis" that he did as an undergraduate at the University of Michigan. Stearns is now a graduate student in applied physics at Stanford.

In addition to Fowler, a past president of the Society, Nina Byers (UCLA), Joseph A. Burton (APS), David L. Dexter (University of Rochester), Milan D. Fiske (General Electric), Roger N. Herman (Pennsylvania State University), and James A. Krumhansl (NSF) served on the selection committee.

Nominations invited. Nominations for the 1979 Apker Award are open to students at colleges or universities in the United States who are enrolled as undergraduates during at least a part of the twelve-month period preceding the 15 June deadline. Only one candidate may be nominated by a physics department. The candidate should have an excellent academic record and should have demonstrated exceptional potential for scientific research by having made an original contribution to physics.

The application should include: a letter of nomination from the head of the physics department; a copy of the student's academic transcript; a senior thesis, publication, or other documentation

written by the student (including a 1000-word summary describing the original contribution to physics submitted for this award), and two letters of recommendation from physicists who know the candidate's personal contribution to the work submitted. The deadline for completed applications is 15 June 1979.

Interested students or faculty should contact J. A. Burton, Administrator, Apker Award, The American Physical Society, 335 East 45th Street, New York, N.Y. 10017. Telephone: (212) 682-7341.

Congressional fellows join Senate staffs

Both of the 1978 APS Congressional Scientist Fellows have accepted appointments on the staffs of members of the United States Senate. Frederick Bernthal (Michigan State University) will serve in the office of Senator Howard Baker (R-Tenn.) and Jill Wittels (MIT) has chosen to spend a fellowship year in the office of Senator William Proxmire (D-Wisc.).

Bernthal will work on several energy issues, including nuclear waste disposal, the breeder reactor and SALT II accords. Wittels plans to work with the staff of the Senate Banking Committee on hearings on international technology transfer and the renewal of the Import-Export Licensing Act.

Altogether twenty Fellows sponsored by some twelve scientific and engineering societies chose their assignments after completing the two-week orientation program organized by the AAAS Office of Special Programs under the direction of Lynn Chambers.

Solomon J. Buchsbaum (Bell Labs), who chaired the selection committee that chose the first APS Congressional Scientist Fellows, has been appointed by APS president Norman F. Ramsey to chair the

Congressional Fellowship Review Committee. The committee has been charged with assessing the effectiveness of the program in meeting the goals set for it by Council in 1972 when it authorized this experiment in public service.

John Andelin (House Committee on Science and Technology) and N. R. Werthamer (Exxon Research Corporation) also serve on the committee whose report and recommendations on the future character and mode of operation of the program are expected to be considered by Council at its meeting on 28 January.

Thomas P. Sheahan, APS Congressional Scientist Fellow in 1977, has returned to the National Bureau of Standards. His colleague, Paul C. Maxwell, has joined the staff of the House Subcommittee on Science, Research and Technology.

Applications invited. The seventh annual competition for the two fellowships to be offered in 1979 has been authorized by Council. Lewis M. Branscomb (IBM), APS President in 1979, will appoint the Selection Committee, which will be chaired by the Vice-President Elect for 1979.

The fellowship stipend will continue at a maximum of \$18 000 for the twelve-month appointment. Applicants will be expected to show exceptional competence in some area of physics, to have a broad background in science and technology, and to have a strong interest and some experience in applying scientific knowledge toward the solution of social problems. The choice of appointment is, as in the past, unrestricted and reserved to the Fellow.

More information about the program and application procedures appears in the January issue of the *Bulletin of the APS*. Deadline for completion of applications is 16 March. For further information, contact Mary L. Shoaf, Administrator, Congressional Scientist Fellowship Program, The American Physical Society, 335 East 45th Street, New York, N.Y. 10017. Telephone: (212) 682-7341.

Industrial Postdoctoral Fellowship applications

The competition has begun for the third annual American Physical Society Industrial Postdoctoral Fellowships. These fellowships offer well qualified physicists postdoctoral opportunities in organizations where relatively few PhD physicists have been employed in the past. They are intended to broaden the contributions of physics and physicists to industry. The fellowships may be awarded for work in large organizations where a strong research and development effort already exists in other fields of science and engineering or for work in smaller companies and professional firms concerned with technology questions.

Anyone who has received a PhD in

physics within the past ten years may apply. The applicant should have a good academic record with demonstrated ability in physics research, a willingness to change fields, and a strong interest in applying physics to the needs of the host industry.

The Fellowship stipend will be about \$20 000 for a recent PhD and up to \$25 000 for a physicist with five or more years postdoctoral experience. The Fellowships will be awarded for a period of twelve months, to start before 31 October.

Applicants should submit a resume, a letter of intent which states why the applicant wants a postdoctoral appointment in industry, and arrange to have three letters of reference sent to the program administrator. The letters of recommendation should discuss the candidate's competence as a physicist and the characteristics that particularly qualify the candidate to apply physics to problems in an industrial setting.

Fellows are expected to assign patent rights to the host company and to sign an agreement on the protection of proprietary information. They should plan to participate in existing programs of the host company.

A Selection Committee, appointed by Lewis M. Branscomb, APS president in 1979, will review all of the completed applications received by the 16 March deadline and invite some applicants for interviews. The "finalists," chosen after the interviews, will be invited to visit several industrial organizations during May. After the visits, the finalists and the firms will each declare whether or not there is a mutual interest in a specific Fellowship arrangement and will outline a general plan of work. Fellows will be named in June.

For further information, contact J. A. Burton, Administrator, Industrial Postdoctoral Fellowship Program, The American Physical Society, 335 East 45th Street, New York, N.Y. 10017. Telephone: (212) 682-7341.

APS to try industrial graduate internships

The Council of The American Physical Society has approved for trial in 1979 a proposal from the Committee on Education for an Industrial Graduate Intern Program. This program, developed under the direction of Werner P. Wolf (Yale), supports the Society's efforts to improve the coupling between the academic and industrial segments of the physics community.

The program, expected to be highly competitive, will provide about fifty internship opportunities at some thirty industrial sites during the summer of 1979. Well-qualified students in physics, applied physics, and astrophysics—senior

and graduate students—at a limited number of departments were encouraged to file applications. The students are required to seek the endorsement of their department chairman, obtain letters of reference, and provide information about their academic performance to date.

After the deadline, 2 February, files of applicants will be screened by a selection committee appointed by APS president Norman F. Ramsey (Harvard University). The most promising applications will be distributed to representatives of the industrial laboratories. The research managers will then contact the students directly: the Society will not participate in the negotiations for any particular internship. It is expected that all negotiations will be completed by 1 April.

Summaries of the reports which the students will write at the close of their internships will be widely circulated and thus will return information about current needs and practices in nonacademic institutions to the colleges and universities.

The interns' summaries, evaluation reports from the review committee, and commentary from the research managers will be organized into a report to be returned to the Committee on Education and the APS Council together with recommendations for continuation of the program in future years.

Industrial representatives and department chairmen who have not already been contacted and who would be interested in participating in this program are encouraged to contact the program administrator, Mary L. Shoaf at the APS headquarters in New York.

Polymer-science course to precede March meeting

The fourth annual polymer short course, "Scattering Methods in Polymer Science," will be offered on 17–18 March 1979, the weekend before the March general meeting of the Society in the Marriott Hotel in Chicago.

The course, sponsored by the Division of High Polymer Physics, has been organized by R. S. Stein (University of Massachusetts). Other members of the faculty are B. L. Crist Jr (Northwestern University), E. W. Fischer (University of Mainz), R. Ullman (Ford Scientific Laboratory), G. C. Berry (Carnegie-Mellon University), and G. L. Patterson (Bell Laboratories).

The course is designed for the working polymer scientist who needs a refresher course. For those who are not active in this area, a bachelor's degree or its equivalent in a physical science or engineering program is necessary preparation for this course.

Subjects to be discussed include:

- ▶ general theory of scattering
- ▶ small angle x-ray scattering (SAXS)

—theory and experimental techniques

- ▶ SAXS—applications
- ▶ small angle neutron scattering (SANS)—theory and experimental techniques
- ▶ SANS—applications
- ▶ light scattering from solutions
- ▶ light scattering—solid amorphous polymers
- ▶ small angle Rayleigh light scattering (SALS) for solids—crystalline polymers and blends.

Lecture notes will be provided for the course, which will meet from 8:30 am to 12:00 noon and from 1:30 pm to 5:00 pm. Tuition for the course is \$125.

Enrollment forms and housing information are printed in current issues of the *Bulletin of the APS*. Enrollment forms and tuition payments are due in the New York office of the APS by 9 March 1979.

For further information about the course itself, please write or call R. S. Stein, Polymer Research Institute, Polymer Science and Engineering Department, University of Massachusetts, Amherst, Mass. 01003. Telephone: (413) 545-2727.

Metallurgy short course to be given in March

The Division of Condensed Matter Physics will offer its first short course, "An Introduction to Metallurgy: Microstructures and Mechanical Properties of Metals," on 17–18 March, the weekend before the March general meeting of the Society in Chicago. The Course has been organized and will be taught by Kenneth Eckelmeyer (Sandia). The sessions will be held in the Chicago Marriott Hotel.

Topics to be discussed include: mechanical characterization, microstructure and mechanical property relationships, control of microstructure and mechanical properties in single phase metals, control of microstructure and mechanical properties in multiphase metals, and structural metals. Lecture notes will be provided and the course will meet from 8:30 am to 12:00 noon and from 1:30 pm to 5:00 pm. Tuition for the course is \$100.

This course has been designed especially for physicists who want to know more about metallurgy; a bachelor's degree in the physical sciences or its equivalent is suitable preparation for the course.

A registration form and housing information can be found in current issues of the *Bulletin of the APS*.

For further information about the course itself, please write or call Kenneth Eckelmeyer, Org. 5832, Sandia Laboratories, Albuquerque, N.M. 87185. Telephone: (505) 264-7775.

Enrollment forms and tuition payments must reach the APS New York office by 9 March 1979. □