New York hosts APS meeting

The highlights include symposia on solar energy, laser applications, fusion materials, high-resolution spectroscopy, quantum solids and women in physics.

The American Physical Society will return to New York City for its second general meeting of the year. The March meeting has become so large that, as was the case last year, it will be necessary to schedule five days, 24–28 March, to accommodate all of the papers. This year's meeting will feature 160 invited papers and 1756 contributed papers, a slight decrease from last year's high of 175 invited and 1783 contributed papers.

The New York Hilton Hotel will serve as the headquarters hotel, and the entire meeting will take place there. Registration and information areas will be located on the second floor promenade. Advance registration will take place on Sunday evening from 6:00 to 9:00 pm and regular registration will begin at 8:30 am on Monday morning. Registration fees will be $20 for members, $30 for nonmembers and $2 for retired members, unemployed members or full-time graduate students. Undergraduate students are exempt from the registration fee but must register at the Society of Physics Students registration desk. A very interesting program will be provided for the students by Dion W. Shea, the SPS Director.

Symposia and sessions

The APS Forum on Physics and Society will sponsor two symposia. At Monday afternoon's symposium, "New Initiatives in Science Communications," Leon Jaroff (Time Life Inc.) will speak on "Science Writing for the Weekly News Magazine," Gerald F. Wheeler (Temple University) will discuss "A Physicist in TV Land" and David Kalson (AIP) will talk about "Placing Science on TV News." At Thursday afternoon's symposium, "Solar Electricity—What's the Problem?," H. Hovel (IBM) will discuss "Advances in the Physics of Solar Cells," D. Schueler (Sandia Laboratory) will talk on "Systems and Economic Perspectives on Solar Photovoltaics," D. Burger (California Institute of Technology) will speak on "Solar Array Manufacturing—Status and Outlook" and D. Feucht (SERI) will discuss "Photovoltaic Research Approaches and Development."

Another symposium of general interest will be "Onward and Upward in Physics: Two-Dimensional Career Mobility," organized by the Committee on the Status of Women in Physics. This session will be arranged as a panel discussion. The panel members are Mildred Dresselhaus (MIT), Janet E. Nelson (Management Woman, Inc.), Mary Shoaf (Princeton Plasma Physics Lab) and Brown F. Williams (RCA David Sarnoff Research Center).

Technical symposia of interest include "Laser Application in Biophysics and Medicine," organized by the division of biological physics. The speakers for this Monday-afternoon session will be B. R. Ware (Syracuse University), C. K. N. Patel (Bell Labs), M. W. Windsor (Washington State University) and D. L. Rosseau (Bell Labs). On Tuesday morning the Committee on the Applications of Physics will sponsor a symposium on "Novel Approaches to Coal Characterization." The speakers for this session will be A. Pines (University of California), J. W. Larsen (University of Tennessee), B. G. Silbernagel (Exxon) and P. R. Sol-

NEW YORK CONVENTION AND TOURIST BUREAU

omon (United Technologies Research Center). The division of condensed matter physics has organized a symposium on "Quantum Solids," for Wednesday afternoon, which will have as speakers N. S. Sullivan (Saclay), H. Meyer (Duke University), R. A. Guyer (University of Massachusetts), J. M. Goodkind (University of California, San Diego) and D. D. Osheroff (Bell Labs).

A session on "Experiments in High Density Plasmas" will be held on Thursday afternoon by the division of plasma physics. Speakers will be D. P. Nagel (Naval Research Lab), W. Bostick (Stevens Institute of Technology), J. Soures (University of Rochester) and R. Gross (Columbia). "Chemical Physics of Gas–Surface Interactions" will be presented on Thursday morning by the division of chemical physics. Speakers for this session will be H. I. Metiu (University of California), J. C. Tully (Bell Labs), D. Auerbach (IBM) and D. Frankl (Penn State). The division of electron and atomic physics has organized a symposium on "Chemical Effects in Ion–Atom Collisions," for Friday afternoon, which will have as speakers D. S. Gemmel (Argonne National Lab), R. L. Watson (Texas A&M), K. O. Groeneveld (Frankfurt) and G. A. Bissinger (E. Carolina University).

Three short courses will be offered on 22 and 23 March, the weekend before the meeting. The division of biological physics will present "Instructions for the Physicist on Biological Problems," and the division of polymer physics will offer "Fundamental Aspects of Polymer Physics" and the division of condensed-matter physics will sponsor "An Introduction to Metallurgy."

With only a few exceptions, all morning sessions will begin at 9:00 am and all afternoon sessions at 2:00 pm.

Ceremonial sessions

On Monday morning and afternoon the APS will hold ceremonial sessions in the East Ballroom. Herman Feshbach, the APS president, will present four awards in the morning and three in the afternoon. Each of the prizewinners will give a brief talk describing the work for which he has been recognized.

The Herbert P. Broida Prize in Molecular Spectroscopy or Chemical Physics will be awarded to Robert W. Field of MIT. The award cites Field "for his design and execution of elegant and original laser spectroscopic studies of isolated small molecules, for providing new technologies such as optical-optical double resonance and for the development of stimulated emission pumping of molecules, leading to a whole class of new molecular laser systems." For further information see PHYSICS TODAY, February 1980, page 69.

Marshall Fixman of Colorado State University will receive the APS High Polymer Prize "for his fundamental contributions to the equilibrium and non-equilibrium statistical mechanics of polymers." Fixman got his PhD from MIT in 1954 and worked at Harvard, Mellon Institute, University of Oregon and Yale before going to Colorado State University.

Dean E. Eastman of IBM and William E. Spicer of Stanford University will be awarded the 1980 Oliver E. Buckley Solid State Physics Prize endowed by Bell Laboratories. The award cites Eastman and Spicer "for their effective development and application of photoelectron spectroscopy as an indispensable tool for study of bulk and surface electronic structure of solids." Eastman received his PhD in 1965 from MIT and is currently the manager of the photoemission and surface group at IBM Watson Research Center. Spicer came to Stanford in 1962 after working with RCA Labs for seven years and receiving his PhD in 1955 from the University of Missouri.

The 1980 Earle K. Plyler Prize will be presented to Walter Gordy of Duke "for his contributions to molecular spectroscopy and the understanding of molecular structure through infrared, microwave, and electron spin resonances, and in particular for the development of molecular spectroscopy at millimeter and submillimeter wavelength." After receiving his PhD in 1935 from the University of North Carolina, Gordy worked at UNC, Baylor College, California Institute of Technology and MIT before coming to Duke in 1948.

The 1980 APS International Prize for New Materials, sponsored by IBM, will be awarded to Pol E. Duwez from Caltech, William Klement, Jr, of University of California, Los Angeles, and Ronald H. Willens from Bell Labs for "their discovery that metallic glasses can be obtained by melt quenching which gives promise of producing a vast source of metals with properties of unusual scientific interest and technical promise." Pol E. Duwez was educated in Belgium and first came to Caltech in 1933. He went back to Belgium in 1935 but returned to Caltech in 1941 and has remained there at various positions since then. William Klement, Jr, received his PhD in 1962 from UCLA and has worked at the University of California at Berkeley and at Los Angeles as well as doing work in several foreign countries. Ronald H. Willens joined Bell Labs in 1966 after working five years at Caltech.

David L. Dexter of the University of Rochester will be presented the 1980 Frank Isakson Prize for "his work on energy transfer processes in solids and particularly for his classic theory of sensitized luminescence, concentration quenching and cooperative absorption." Before coming to the University of Rochester in 1958 Dexter worked at the University of Wisconsin and the University of Illinois

FIXMAN

GORDY

WILLENS

DEXTER

SPICER

DUWEZ

EASTMAN

after receiving his PhD from Michigan State University in 1951.

The AIP Prize for Industrial Applications of Physics will be presented to Andrew H. Bobeck of Bell Labs for his work on magnetic bubble memory. (See this issue, page 95).

Other events and services

The American Institute of Physics will conduct a placement center during the meeting in the Beekman Room of the New York Hilton Hotel. Personal interviews between physicists seeking employment and prospective employer representatives attending the meeting will be arranged. The center will be open from 9:00 am to 5:00 pm on Monday through Thursday and from 9:00 am to 12 noon on Friday. Registrants can also schedule appointments with the AIP Placement Consultant to discuss employment problems.

The APS show will feature new equipment for research in surface and condensed matter, chemical, electron, atomic and biological physics. This equipment is central to such analytical methods as magnetic resonance techniques, laser spectroscopy, Mössbauer spectroscopy, x-ray scattering techniques and measurement techniques involving photoelectrons, Auger, LEEDS, SIMS and ESCA. These methods have particular relevance to research in semiconductor interfaces and heterojunctions, microstructures, surfaces, superconducting and solar-energy materials, UHV and cryogenic environments. Several publishers will also be in attendance, displaying their latest books and journals. The physics show will be located in the Rhinelander Gallery on the second floor of the New York Hilton Hotel. The exhibit will be open from 10:00 am to 5:00 pm on Tues-

Invited papers and special events

mon.

MORNING

Ceremonial Session: *Field, Fixman, Eastman, Spicer*

Biological Physics: Brain Research *Levinthal, Kandel, Llinaf*

Committee on the Status of Women in Physics: Onward and Upward in Physics: Two-Dimensional Career Mobility *Williams, Shoaf, Nelson, Dresselhaus*

AFTERNOON

Ceremonial Session: *Willens, Duwez, Dexter, Bobeck*

Condensed Matter Physics: New Uses of High Pressure in Condensed Matter *Zallen, Jayaraman, Mao, Besson, Ruoff*

Biological Physics: Laser Application in Biophysics and Medicine *Ware, Patel, Windsor, Rosseau*

Forum on Physics and Society and American Association of Physics Teachers: New Initiatives in Science Communications *Jaroff, Wheeler, Kalson*

tues.

MORNING

Condensed Matter Physics: Superlattices *Gossard, Kawai, Pinczuk, Holonyak, Hess*

Condensed Matter Physics: Laser Processing *White, Smith, Smith, Brown*

Condensed Matter Physics: Novel Approaches to Coal Characterization *Pines, Larsen, Silbernagel, Solomon*

Chemical Physics: Inelastic Molecular Collisions: Theory and Experiment I *Truhlar, Buck, Leone, Alexander*

Condensed Matter Physics: Surface Magnetism *Rau, Bader*

AFTERNOON

Condensed Matter Physics: Deep Levels in Semiconductors *Baraff, Bernholc, Wolford, Kennedy, Haller*

Condensed Matter Physics: One-Dimensional Conductors *Bernasconi, Gruner, Bloch, Conwell, Jerome*

Committee on the Applications of Physics: Lithography *Bowden, Broers, Reinberg, Wolf*

Chemical Physics: Inelastic Molecular Collisions: Theory and Experiment II *Pritchard, Ribitz, Thomas, Dagdigian*

wed.

MORNING

Condensed Matter Physics: Complex Defects *Luty, Nicklow, Swanson, Dederichs*

Biological Physics: Motion of Single Cells *Albrecht-Buehler, Blakemore, Bean, Robertson*

Condensed Matter Physics: Proximity Effect Tunneling *Arnold, Wolf, Ovadyahu, Dumoulin*

Biological Physics: Business Meeting

AFTERNOON

Condensed Matter Physics: Quantum Solids *Sullivan, Meyer, Guyer, Goodkind, Osheroff*

Condensed Matter Physics: Various Surface Probes *Stohr, Ehrlich, Knotek, Krakauer*

Biological Physics: NMR Studies of Biological Dynamics *Redfield, Gurd, Dobspn, Karplus, Ugurbil*

High Polymer Physics: Business Meeting

Cocktail Party: East Ballroom

thurs.

MORNING

Condensed Matter Physics: Localization in Low Dimensional Systems *Thouless, Dolan, Giordano, Lee, Abrahams*

Condensed Matter Physics: Superconducting Materials *Prober, Scott, Tedrow, Jarlborg, Tse*

Electron and Atomic Physics: Synchrotron Radiation and other Probes of Atomic and Molecular Structure *Shirley, Lindau, Hitchcock, Dehmer*

Chemical Physics: Chemical Physics of Gas-Surface Interactions I *Metiu, Tully, Auerbach, Frankl*

Chemical Physics: Business Meeting

AFTERNOON

Condensed Matter Physics: Intermediate-Valence Materials *Mook, Sinha, Parks, Allen*

Plasma Physics: Experiments in High Density Plasmas *Nagel, Bostick, Soures, Gross*

Forum on Physics and Society: Solar Electricity—What's the Problem? *Hovel, Schueler, Burger, Feucht*

Chemical Physics: Chemical Physics of Gas-Surface Interactions II *Madey, Citrin, Fain, Bruch*

Condensed Matter Physics: Picosecond Spectroscopy *Auston, Ackley*

fri.

MORNING

Condensed Matter Physics: Two-Dimensional Systems *McCombe, Wilson, Stephens, Leiderer, O'Sullivan*

Condensed Matter Physics: Hydrogen at Surfaces *Feibelman, Feldman, Davenport, Livesay, Shenoy*

Committee on Applications on Physics: Fusion Materials I *Hayns, Wilkes, Spitznagel, Freyhardt*

Electron and Atomic Physics: High-Resolution Spectroscopy—Theory and Experiment *Walters, Harter, McDowell*

AFTERNOON

Condensed Matter Physics: Defects in Non-Crystalline Materials *Kastner, Vanderbilt, Chaudhari, Galeener, Guttman*

Committee on Applications of Physics: Fusion Materials II *More, Wolfer, Kaminsky, Wilson*

Electron and Atomic Physics: Chemical Effects in Ion-Atom Collisions *Gemmel, Watson, Groeneveld, Bissinger*

day and Wednesday and from 10:00 am to 4:00 pm on Thursday.

The public-information division will manage a news service located in Suite 524 on the fifth floor of the New York Hilton Hotel. The service will distribute news releases, present selected papers in lay language and set up interviews by science writers of the authors of newsworthy papers.

Registrants can obtain information on the APS Insurance Program from Herbert Friedman, the program administrator, at his desk in the registration area on the second floor of the hotel.

The APS will hold a no-host cocktail party on Wednesday evening at 6:00 pm in the East Ballroom. The society will provide hors d'oeuvres.

Any last-minute correspondence to APS officers, session chairmen and members should be addressed to the APS Meeting Headquarters Office, Suite 520, New York Hilton Hotel, 1335 Avenue of the Americas, New York City, NY, 10019.

Polishing the apple

New York City is truly a city for all seasons, but after the cold winter months the city blossoms with activity in spring. The excitement of Broadway waits just outside the Hilton. Theatres, films, museums, restaurants, shops and nightclubs are plentiful in the area. The Museum of Modern Art at 11 W. 53rd Street will feature the works of Eileen Gray, and the Metropolitan Museum of Art at Fifth Avenue and 82nd Street will display the drawings of Barnett Newman and 19th-century French drawings. Other nearby museums include the Museum of American Folk Art (29 W. 53rd Street), the American Museum of Natural History (Central Park West and 79th Street), the Cooper-Hewitt Museum (Fifth Avenue and 91st Street), the Frick Collection (1 East 70th Street), the Solomon R. Guggenheim Museum (Fifth Avenue and 89th Street) and the Whitney Museum of American Art (Madison Avenue and 75th Street).

Some activities of interest that will coincide with the meeting include the Ringling Brothers and Barnum and Bailey Circus at Madison Square Garden, the Twyla Tharp Dance Company at the City Center of Music and Drama and the Spring Holiday Spectacular at Radio City Music Hall. Art lovers may wish to visit some of the many galleries located downtown in the Soho area, and theatre fans can save money at the Times Square Theatre Center (Broadway and 47th Street), which sells half-price tickets to certain Broadway and off-Broadway shows as well as opera, ballet and concerts at Lincoln Center. Tickets are available on the day of performance only. For further information about the activities in the Big Apple contact the New York Convention and Visitors Bureau at 90 E. 42nd Street. —BJ