



APS holds March Meeting in Phoenix

Participants will hear eighteen symposia on condensed matter physics, the Heard Museum of Anthropology will present an evening of folkloric crafts and dance, and there will be award ceremonies and displays of new equipment.

The American Physical Society will meet in Phoenix, Arizona from Monday, 16 March, to Friday, 20 March. During the four and one-half days of meetings there will be 36 sessions of invited papers and 116 of contributed papers, of which 23 will include invited papers. A total of 1762 contributed papers will be heard.

The headquarters hotel is the Hyatt Regency. Half the technical sessions will be held there; the others will be held across the Civic Plaza, at the Phoenix Convention Center.

Registration and Information Centers will be located in the lobbies of both buildings from 8:30 to 5:00 every day except Friday, when hours will only extend to 11:00 am. Advance registration will take place Sunday evening from 6:00 to 9:00 pm at the entrance-floor lobby to the Hyatt Regency.

Each morning and afternoon (except Friday afternoon) about four symposia of invited papers will be held. Concurrently, about three times as many contributed paper sessions will take place.

Awards

On Tuesday, APS awards will be presented at morning and afternoon ceremonial sessions, in the Civic Center's Symphony Hall. In the morning session Arthur Schawlow, APS president, will award prizes to William Carl

Lineberger, Robert Simha, Willis H. Flygare and Richard N. Zare.

The Herbert H. P. Broida Prize in Atomic and Molecular Spectroscopy or Chemical Physics, which includes a cash award of \$5000 contributed by the friends and colleagues of Broida and the Office of Naval Research, will be presented to Lineberger "for defining the field of negative ion spectroscopy. His elegant photodetachment experiments have measured electron affinities and provided a sensitive new probe of electron-electron interaction through threshold behavior. His photoelectric spectra of negative ions have uncovered new electronic states of neutral species which often challenge the prevailing electronic structural theories." Lineberger studied electrical engineering and received his PhD from Georgia Institute of Technology in 1965. In 1968 he became a research associate in physics at the Joint Institute for Laboratory Astrophysics. Two years later he was appointed assistant professor in chemistry at the University of Colorado at Boulder, where he is now professor of chemistry. Since 1971 he has also been a fellow of the Joint Institute.

Robert Simha will receive the 1981 American Physical Society High Polymer Physics Prize, which is sponsored by the Ford Motor Company and includes a cash award of \$3000. Simha

will be cited for his "broad-ranging theoretical and experimental contributions in the areas of slow processes, kinetics, and statistical mechanics of the polymer solid state." Simha received his PhD in 1935 in physics at the University of Vienna. There he was a research associate until 1938. He then worked at Columbia University and taught at Polytechnic Institute of Brooklyn, at Howard University, where he was assistant professor, and at the National Bureau of Standards Graduate School. He was professor at New York University (1951-59) and at the University of Southern California (1959-67). Since 1968 he has been professor of macromolecular science at Case Western University.

The 1981 Irving Langmuir Prize in Chemical Physics, which is donated by the General Electrical Foundation, will be awarded to Willis H. Flygare. Flygare is commended for "his outstanding contributions to the understanding of molecular electronic structure, and molecular dynamics through the introduction of high-resolution microwave techniques . . . ; for his many contributions in other fields, including light scattering in and structure of liquids, radio astronomy, and solid state studies; for setting an example of combined theoretical and experimental excellence in chemical physics." Flygare received his BA from St. Olaf College,



LINEBERGER



SIMHA



FLYGARE



ZARE

his PhD in chemistry from Berkeley, in 1961. Teaching at Berkeley from 1951 to 1966, he became associate professor. Since 1966 he has been professor of chemistry at the University of Illinois at Urbana.

Also, Tuesday morning, Richard N. Zare will receive the 1981 Earl K. Plyler Prize, sponsored by the George E. Crouch Foundation, for "seminal contributions to molecular spectroscopy by incisive theoretical methods and development of the elegant powerful experimental technique of laser-

induced fluorescence." Zare received his BA and PhD (1964) in chemical physics from Harvard. After a fellowship at the Joint Institute for Laboratory Astrophysics, he became assistant professor of chemistry and physics at the University of Colorado (1966-69). From 1969 to 1977 he was professor of chemistry at Columbia. Since 1977 he has been professor of chemistry at Stanford.

On Tuesday afternoon, there will be a second ceremonial session. Schawlow will present to LeGrand G. Van

Uitert the 1981 APS International Prize for New Materials, which awards the winner \$5000 funded by IBM. Van Uitert studied at George Washington University (BA, 1949) and Penn State (MS, 1951; PhD in chemistry, 1952). Since then he has been on the technical staff of Bell Labs.

Van Uitert is commended for "the discovery and development of a variety of new materials of vital importance to magnetic and optical technology. These include microwave ferrites, garnets for bubble-domain memory devices and la-

MON

MORNING

Symposium of the Division of Condensed Matter Physics:
Surface Enhanced Raman Scattering: Wolff, Murray, Otto, Demuth, Moskowitz.

Symposium of the Division of Condensed Matter Physics:
CDW and SDW in Incommensurate Systems: McWhan, Suits, Walker, Rice, Smith.

Symposium of the Committee on the Applications of Physics: Probing the Physics of Coal Pyrolysis: Suuberg, Baker, Maylotte, Montano.

Symposium of the Division of Electron and Atomic Physics:
Rydberg Atom Interaction: Stebbings, Farley, Castro-Neto, Dehmer.

AFTERNOON

Symposium of the Division of Condensed Matter Physics:
Polyacetylene: Schrieffer, Rice, Heeger, Tomkiewicz, Nechtschein.

Symposium of the Division of Condensed Matter Physics:
Oxide Surfaces and Compound Semiconductor Interfaces: Wolfram, Henrich, Prutton, Chung, Brillson.

Symposium on Algebraic Computation and its Applications to Physics: Stoutemyer, Norman, Griss, Kulp.

Symposium of the Division of Electron and Atomic Physics:
Channeling: Moak, Cue, Pantell, Gibson.

TUES

MORNING

Symposium of the Division of Condensed Matter Physics:
Intercalated Graphite: Ritsko, Safron, Clarke, Dresselhaus, Eklund.

Invited Papers

Symposium of the Division of Condensed Matter Physics:
Structure in Noncrystalline Materials: Falco, Feimer, Chen, Szaftel, Hauser.

Symposium of the Division of Biological Physics: Diffraction Studies of the Structure of Biological Systems: Stamatoff, Blasie, Forsyth, Engelman, Hendricks.

Ceremonial Session in Honor of APS Prize Winners:
Lineberger, Flygare, Zare, Simha.

AFTERNOON

Symposium of the Division of Condensed Matter Physics:
Solitons: Buttiker, Steiner, Trullinger.

Symposium of the Division of Condensed Matter Physics:
Semiconductor Surface Structure: Bauer, Cardillo, Goddard III, Webb, Zehner.

Joint Symposium of the Divisions of Biological and Chemical Physics: Physics of Biological Reaction Rates: Wolynes, McCammon, Parson.

Ceremonial Session in Honor of APS Prize Winners: Van Uitert, Lee, Osheroff, Richardson.

WED

MORNING

Symposium of the Division of Condensed Matter Physics:
Crystallization: Gilmer, Glicksman, Wood, Landau, Biegelsen.

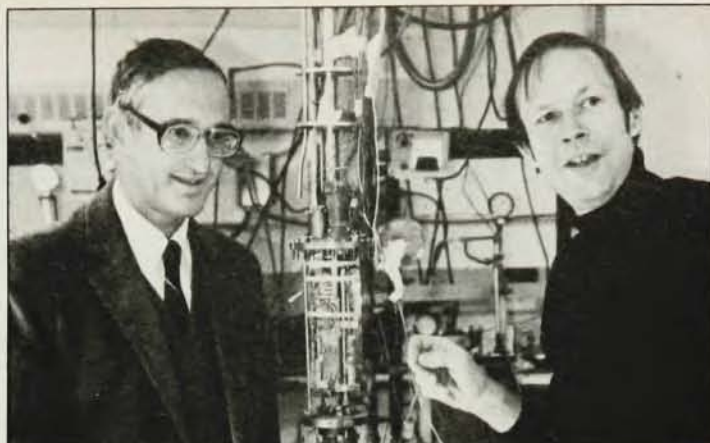
Symposium of the Division of Condensed Matter Physics:
Electronic States in Noncrystalline Materials: Cohen, Tiedje, Joanopoulos, Rose, Orenstein.



VAN UITERT



OSHEROFF



LEE (LEFT) AND RICHARDSON

sers, orthovanadate phosphors, niobates and molybdates for electro-optical devices and borosilicate glasses for optical waveguides."

The 1981 Oliver E. Buckley Solid State Physics Prize, which is endowed by Bell Labs and includes a prize of \$5000, will be presented to David M. Lee, Douglas D. Osheroff and Robert C. Richardson for their discovery and pioneering research on the superfluid phases of He^3 . The three physicists were also awarded the Simon Memorial Prize of the (British) Institute of Phys-

ics in 1976.

Richardson, who received an MS from Virginia Polytechnic Institute in 1960 and a PhD in physics from Duke University in 1966, has taught at Cornell University since 1967. Until 1971 he was assistant professor; since then he has been associate professor of physics.

Lee was educated at Harvard (AB, 1952), the University of Connecticut (MS, 1955) and Yale University (PhD in physics, 1959). From 1959 to 1968 he was instructor, then associate profes-

sor, at Cornell. Since 1968 he has been professor of physics there.

Osheroff, who received a BS at Caltech in 1967 and was a graduate student in physics during the prize-winning research, has since received his PhD in physics from Cornell (1973) and joined the staff of Bell Labs.

Physics show

The American Institute of Physics has organized an equipment show to be held in the Assembly Hall of the Civic Center from 10:00 am to 5:00 pm Tues-

Special Events

Symposium of the Division of Biological Physics:

Applications of X-Ray Absorption Spectroscopy to Biological Molecules: Blumberg, Powers, Moffat, Klein, Eisenberger.

Symposium of the Division of Chemical Physics: Chemical Physics at High Pressures: Gordon, Samara, Nichol, Jonas, Drickamer.

AFTERNOON

Symposium of the Division of Condensed Matter Physics: Equations of State and Bonding: Pettifor, Gelatt, Jr., Yin, Muhlhausen.

Symposium of the Division of Condensed Matter Physics: Superionics: Bates, Vashishta.

Symposium of the Division of Biological Physics: Photosynthetic Model Systems: Feher, Pearlstein, Fajer, Moore.

Symposium of the Committee on International Scientific Affairs: Research Contributions of Foreign Industry in Less Developed Countries: Anandakrishnan, Branscomb, Casimir, Dennison, Kerwin.

Symposium of the Division of Condensed Matter Physics: Invited Poster Session on National Facilities. Hyatt Hotel, Phoenix Ballroom A-B. Business Meeting of the Division of High Polymer Physics.

THUR

MORNING

Symposium of the Division of Condensed Matter Physics: Nuclear Waste: Boatner, Ewing, Pohl, Simmons, Tewhey.

Symposium of the Division of Condensed Matter Physics: High Density Excitons: Reinecke, Gourley, McGill Jr., Singwi.

Symposium of the Division of Plasma Physics: Plasma Turbulence: Dubois, Nicholson, Rose, Tetreault, Kaw, Drake.

Symposium of the Division of Chemical Physics: Chemical Bonding in Molecules and Solids: Bonham, Berko, Harrison.

AFTERNOON

Symposium of the Division of Condensed Matter Physics: Turbulence: Cross, Swinney, Huberman, Libchaber, Walken.

Symposium of the Division of Condensed Matter Physics: Narrow Band Gap Semiconductors: Furdyna, Broerman, Holloway, Littlewood.

Symposium of the Forum on Physics and Society: Nuclear Issues: Reactor Safety and Waste Disposal: Stratton, Beyea, Griswold, Witherspoon.

Symposium of the Division of Chemical Physics: Electron Impact Spectroscopy: Kuppermann, Poe, Read, Celotta.

FRI

MORNING

Symposium of the Division of Condensed Matter Physics: Physics of Very Small Semiconductor Devices: Capasso, Eastman, Ferry, Shur, Solomon.

Symposium of the Forum: Solar Power Satellites: Komanoff, Glaser, Garwin, Kasper.

Symposium of the Division of Chemical Physics: Finite-Time Thermodynamics: Andresen, Jaynes, Levine.

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day and Wednesday and 10:00 am to 3:00 pm on Thursday. Manufacturers will display new equipment for magnetic resonance, laser spectroscopy, Mössbauer spectroscopy, x-ray scattering and measuring techniques involving photoelectrons and LEED, SIMS, ESCA and Auger spectroscopy. In addition science publishers will exhibit recently published books and journals.

Other events

Short courses will be offered on the Saturday and Sunday, 14 and 15 March, before this meeting. They will run from 8:30 am to 5:00 pm. The Division of Condensed Matter Physics course on ion-implantation metallurgy will be held in suite 326 of the hotel; the Division of High Polymer Physics (which will hold its regular meeting in Phoenix 16 March to 19 March) course on structural, thermodynamic and mechanical properties of polymers will take place in suite 327.

There will be no Placement Service at the March meeting. At the April meeting of the APS in Baltimore, the service will be provided.

The Society will hold a no-host cocktail party on Monday evening 6:00 to 8:00 in the second-floor atrium level of the Hyatt Hotel, at which hors d'oeuvres will be provided.

Wednesday evening the Heard Museum of Anthropology and Indian Art will be open for the exclusive use of the Society. A reception and buffet dinner will take place. The museum displays craft arts of Native Americans and of other non-Western people. These provide a view of the cultural history of the American Southwest. A special program will be presented that will include demonstrations of crafts techniques by artisans and a performance of Mexican dance by the Ballet Folklórico.

Phoenix

Visitors will doubtless find much to interest them in this city, whose metropolitan area is inhabited by 1.5 million people.

Because March temperatures range between 75 and 45 °F, visitors may wish to make use of the extensive sporting facilities, which offer golf, tennis, horseback riding, and a swimming pool with three- to five-foot artificial waves every minute.

Among local museums are several unusual ones. The Pueblo Grande Museum (275-3452) displays Hohokam ruins thought to have been occupied from 200 BC to 1400 AD. The Arizona Mineral Museum (255-3791) houses an extensive collection of local minerals and ores.

A visitor information line plays a recording of the week's events (956-6200).

—DG