



and VIEWS

PLEASANT

APS AT CLEVELAND

Karl Darrow recently classified meetings of the American Physical Society on the basis of whether they are "large" or "pleasant." The Cleveland meeting of the American Physical Society, March 10-12, was definitely of the second type, since it proved possible for all of the members who attended to spend considerable time discussing problems at leisure in the quiet way that characterized most of the meetings before the war.

One of the most noteworthy features of the meeting is that it represented the first gathering in which the majority of the program was devoted to work of the division of solids. There was one session of ten-minute papers and a few invited addresses on topics not directly related to solids but the overwhelming majority of the program dealt with those aspects of solids which are being pursued in this country at present. The members of the division were so enthusiastic about the results that a strong desire was expressed to duplicate the meeting in another year with the hope that an annual tradition might be established.

Each individual attending a meeting comes away with somewhat different impressions of the important parts of the pattern of presentation. In the writer's mind there were four outstanding contributions which are worth noting.

In the first place there were a number of papers on the properties of silicon and germanium which further advance our rapidly developing knowledge of these materials. This work ranged from investigations of the electrical properties at very low temperatures to work on the photoelectric effect near room temperature. Papers appeared from all of the prominent laboratories interested in these semiconductors. Dr. Goucher of the Bell Laboratories presented a thirty minute paper in which detailed measurements of quantum yield in the photoelectric effect was described. This work seemed to be particularly noteworthy because it provides an insight into the behavior of electron levels near the edge of the filled and empty bands.

Second, there was a group of papers on the plastic properties of metals. It is apparent that this highly complex subject has lost none of its attractions for the fundamental investigators. It is also apparent that study of plasticity is occupying a substantial part of the talent in all parts of the country.

Third were the group of papers on the study of order and disorder in alloys. Smoluchowski served as keynoter for this type of work by presenting an invited paper which surveyed the existing status of the field. In addition, there were a number of papers representing very recent advances in technique. To the writer, the outstanding papers of this type centered about Warren's group at MIT which is using x-ray techniques and has

greatly advanced the quantitative aspects of the determination of both short range and long range order.

Finally, there should be mentioned the papers on high pressure work emanating from the Institute for Study of Metals from the University of Chicago. Lawson and his co-workers described their relatively new installations in this field and work which they are undertaking. It now appears that additional outstanding results will soon be added to those which Bridgman has contributed almost singlehanded for so many years.

The Cleveland laboratories of the NACA provided opportunity for a visit on Friday afternoon. Those who took advantage of this opportunity were able to see, among other things, the new wind tunnel which is rapidly nearing completion.

—Frederick Seitz

RADIO ENGINEERS MEET

CONFERENCE ON HIGH FREQUENCY MEASUREMENTS

According to a communication from F. J. Gaffney, chairman of the American Institute of Electrical Engineers subcommittee on high frequency measurements, approximately nine hundred people attended the conference on high frequency measurements held January 10, 11, and 12 in Washington, D. C. The conference, which was jointly sponsored by the AIEE, the Institute of Radio Engineers, and the National Bureau of Standards, was the first meeting of its kind to be held on a national basis. It was divided into four technical sessions (devoted to the topics of frequency, power and attenuation, impedance, and noise and antenna measurements) and inspection trips were made by a number of the group to the Naval Research Laboratory, the Naval Ordnance Laboratory, and the National Bureau of Standards.

RADIOELEMENT POISONING

ARGONNE ANNOUNCES METAL DISPLACEMENT THERAPY

Argonne National Laboratory has recently announced important results in the treatment of radioelement poisoning by metal displacement therapy. The treatment, reported by Jack Schubert of the Laboratory's division of medicine, involves injections of a solution of zirconium citrate given to rats which have received previous injections of significant amounts of radioactive materials such as plutonium and yttrium. The zirconium treatment has resulted in at least three-fourths of the radioactive materials previously injected into rats being removed within six days. The method has been found to cause a great increase in the urinary excretion of plutonium and yttrium and a large decrease in the amount of these elements deposited in the animal's skeleton.

BEGINNINGS

UNIVERSITY OF ILLINOIS

Dedication ceremonies for the new electrical engineering building of the University of Illinois will take place May 19 through May 21 at Urbana. The new building has ample classrooms and laboratories for experimental work in communications, illumination, measurements, servo-mechanisms, and electrical machines. The cere-

monies will be featured by a symposium on the expanding frontiers in electrical engineering. Four major topics will be discussed: Electron and Ion Dynamics, by W. C. Hahn, A. W. Hull, and A. L. Samuel; Semiconductors, by F. Seitz, W. Shockley, and L. P. Smith; Statistical Problems in Electrical Engineering, by D. O. North, K. Norton, and N. Weiner; and Applications in Fields of Illumination, Machines, and Sound, by W. J. Fry, W. Harrison, and G. Kron.

NAVAL ORDNANCE LABORATORY

Formal dedication of the new aeroballistics facilities at the Naval Ordnance Laboratory at White Oak, Maryland, will take place on June 27. The new facilities include supersonic and hypersonic wind tunnels and transonic and pressurized ballistics ranges.

The ceremonies are to be followed by five half-day technical sessions devoted to various aerodynamic and aeroballistic subjects, and it has been announced that outstanding United States and foreign scientists have been invited to present papers. The fluid dynamics division of the American Physical Society will meet at the Naval Ordnance Laboratory on June 30 and July 1 in connection with the dedication and technical sessions; symposia are planned on turbulence, shock-wave phenomena, and aerothermodynamics.

OTHER SYMPOSIA AND SUMMER OFFERINGS

INSTRUMENT SOCIETY OF AMERICA

The fourth spring meeting of the Instrument Society of America will be held May 12 and 13 at the Royal York Hotel, Toronto, Canada. The registration fee for ISA members and for members of cooperating societies is \$2.00; the non-member registration fee is \$3.00. Pre-registration is urged, and those who have not received a registration card may write to Richard Rimbach, National Secretary, Instrument Society of America, 1117 Wolfendale Street, Pittsburgh 12, Pa.

SOCIETY FOR APPLIED SPECTROSCOPY

The Society for Applied Spectroscopy has announced that a symposium on the theory and application of spectroscopy will be held at the Brooklyn Polytechnic Institute on May 21. The morning session will be on emission work, and the afternoon session on infrared absorption spectroscopy. Each session will feature two papers stressing theory and development and three stressing the application of spectroscopy to industry.

TRACERS

The special training division of the Oak Ridge Institute of Nuclear Studies announces that three basic courses in the techniques of using radioisotopes as tracers will be held during the summer. Plans also are being made for two secondary courses which have tentatively been scheduled for September.

Thirty-two participants will be accepted for each of the four-week basic courses. Each session will include laboratory work, lectures on laboratory experiments, general background lectures, and special-topic seminars.

The basic courses will be given from June 6 to July 1, July 11 to August 5, and from August 8 to September 2.

A registration fee of \$25.00 will be charged and dormitory facilities in Oak Ridge will be provided at nominal cost. Additional information may be obtained from Dr. Ralph T. Overman, Chairman, Special Training Division, Oak Ridge Institute of Nuclear Studies, P.O. Box 117, Oak Ridge, Tennessee. Applications should be mailed prior to June 1 if possible.

IONOSPHERIC RESEARCH

A conference and symposium on ionospheric research will be held at Pennsylvania State College on June 27, 28, and 29 under the joint sponsorship of the college and the Geophysical Research Directorate of the United States Air Forces. Eight to twelve papers will be presented following the theme, "Present Day Research on Radio Wave Propagation via the Ionosphere." Further details may be secured from Dr. A. H. Waynick, Radio Propagation Laboratories, Pennsylvania State College, State College, Pennsylvania.

DIGITAL COMPUTERS

The National Bureau of Standards is planning two symposia on the effective utilization of automatic digital computing machinery. The first is on the construction and applications of conformal maps and is tentatively planned for June 24-25; the second, planned for June 27-29, will be concerned with probability methods in numerical analysis, with emphasis upon applications of the "Monte Carlo" method. The latter symposium is being arranged jointly by the Institute for Numerical Analysis and the Rand Corporation, with the assistance of the Atomic Energy Commission. Further information on either symposia may be obtained from Dr. J. H. Curtiss, Institute for Numerical Analysis, Los Angeles 24, California.

CONTEMPORARY PHYSICS

The University of Michigan's 1949 Summer Symposium on contemporary physics is scheduled to be held from June 27 to July 30. Guest lecturers will include Luis Alvarez of the University of California, R. P. Feynman of Cornell University, Frederick Seitz of Carnegie Institute of Technology, and G. B. B. M. Sutherland of Cambridge University. The program includes two or three lectures daily, with frequent colloquia on topics of current interest. No formal registration is required, and there are no fees for visitors having the doctoral degree. Further information may be obtained by addressing Dr. E. F. Barker, the chairman of the department of physics, Ann Arbor, Michigan.

SOCIETY ACTIVITIES

DIVISION OF SOLID STATE PHYSICS

The annual meeting of the American Physical Society's Division of Solid State Physics was held March 10 to 12 in Cleveland at the Case Institute of Technology and Western Reserve University. The division was informally organized in 1943 by six individuals who formed a committee, and acted (in the words of Frederick Seitz, who