

Meetings and Societies

Molecular Structure and Spectroscopy

The tenth anniversary of the Symposium on Molecular Structure and Spectroscopy, which has become an annual event at the department of physics and astronomy at Ohio State University, took place during the week 11–15 June. The symposium had as its guests the members of the Joint Commission on Spectroscopy of the International Union of Pure and Applied Physics and the International Astrophysical Union, and the National Research Council Committee on Line Spectra of the Elements. The conference was under the sponsorship of the department of physics and astronomy, the Graduate School of the university, the National Science Foundation, and the U.S. Office of Naval Research.

The papers on the program were divided into two groups: a group of invited papers and a group of contributed papers. The invited papers were presented in morning sessions throughout the week. Invited papers related to the electronic structure of molecules and electronic band spectra were presented on the first morning by John Slater (Massachusetts Institute of Technology), Per-Olov Löwdin (University of Uppsala), R. S. Mulliken (University of Chicago), and G. Herzberg (National Research Council of Canada).

The theory of infrared and microwave spectra was discussed in four invited papers on the second morning by J. H. Van Vleck (Harvard University), Chun C. Lin (University of Oklahoma), D. M. Dennison (University of Michigan), and E. Bright Wilson, Jr. (Harvard University).

On the third morning, four invited papers were presented by H. W. Thompson (Oxford University), Børge Bak (University of Copenhagen), Ludwig Genzil (University of Frankfurt a.M.), and W. H. Shaffer (Ohio State University). The subjects discussed were high-dispersion measurements in the infrared and microwave regions of the spectrum and certain aspects of the spectra of long-chain molecules.

The invited papers presented on the fourth morning dealt with chemical physics problems. These were presented by R. Mecke (University of Freiburg), J.

Lecomte (Sorbonne), and S. Mizushima (University of Tokyo).

The series of invited papers were concluded on the fifth morning by three dealing with infrared instrumentation. These were given by P. Jacquinot (Bellevue Laboratories), John Strong (Johns Hopkins University), and David Rank (Pennsylvania State University).

A separate set of papers, arranged by the National Research Council committee, was presented on line spectra of the elements at three afternoon sessions. Members of the Joint Commission on Spectroscopy participated in these sessions. The contributed papers were otherwise molecular in character, covering such subjects as electronic band spectra, infrared and microwave spectroscopy of small molecules, intensities of bands and spectral lines, hindered rotation in molecules, spectroscopy of the solid state, chemical physics spectroscopy, and instrumentation.

At the annual symposium dinner, responses to words of welcome of the toastmaster were made by William Meggers (National Bureau of Standards) in behalf of the Joint Commission on Spectroscopy and the National Research Council committee and by Harold W. Thompson (Oxford University) in behalf of the European infrared group. The main address was by Bryce Crawford (University of Minnesota), who spoke on consumer relations in infrared.

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Meeting Notes

■ The Committee on Fire Research and the Fire Research Conference of the Division of Engineering and Industrial Research of the National Academy of Sciences–National Research Council is planning a Research Correlation Conference to be held at the National Academy of Sciences in Washington, D.C., on 8–9 Nov. The Committee on Fire Research and the Fire Research Conference were established at the request of the Federal Civil Defense Administration to stimulate and advise on research directed toward the development of new knowledge and new techniques that may aid

in preventing or controlling wartime and peacetime fires.

This meeting will be concerned with the problem of convincing scientists that there is a significant research job for them in the field of the spread of uncontrolled fires. Most scientists have heretofore concerned themselves principally with research problems of direct applicability to prevention and control of fires. This meeting will also undertake to persuade those who sponsor applied research in the field of fire and fire control that there is such a degree of ignorance in some of the fundamentals of fire spread and fire suppression that support of research in these fields is essential to an intelligent solution of the fire problem.

The attendance at the conference must necessarily be limited and will be by invitation. Those actively interested in basic research on fire and the spread and growth of fire should indicate their interest and request advance registration cards. Address all communications to Mr. D. W. Thornhill, Executive Secretary of the Committee on Fire Research and the Fire Research Conference, National Academy of Sciences, 2101 Constitution Ave., Washington, D.C.

■ The first International Congress of Neurological Sciences will be held in Brussels, Belgium, 21–28 July 1957. This congress will accomplish an affiliation, for the first time, of all independent international congresses of several neurological disciplines into a single integrated international convention.

The congresses scheduled to meet simultaneously in Brussels under the new coordinated program are as follows: sixth International Neurological Congress; fourth International Congress of Electroencephalography and Clinical Neurophysiology; third International Congress of Neuropathology; first International Congress of Neurological Surgery; third meeting of the International League Against Epilepsy; and the second Symposium Neuroradiologicum. The broad title of Congress of Neurological Sciences was adopted to allow for participation in future congresses of other neurologic disciplines, such as neuroanatomy, neurochemistry, and neuropharmacology.

The scientific program of the International Congress of Neurological Sciences will highlight two major symposia of common interest to the congress as a whole, and several symposia of special interest to the particular disciplines represented by each affiliate of the congress, but which are pertinent to the interests of the entire congress. In addition, arrangements have been made for the presentation of miscellaneous communications.

The two major symposia of common interest are "Extrapyramidal disease,"



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to be conducted by Raymond Garcin of Paris, and the "Significance and interpretation of modifications of the conscious state," which will be led by Geoffrey Jefferson of London. Among the symposia of special interest is one on "Multiple sclerosis," under the chairmanship of H. Houston Merritt of New York, vice president of the United States Committee of the sixth International Neurological Congress.

The organization of the first International Congress of Neurological Sciences is centralized under the direction of P. van Gehuchten and Ludo van Bogaert, president and secretary-general, respectively, of the Belgian National Committee for the sixth International Neurological Congress. Appointed as official travel agencies are Thomas Cook and Son, Inc., and the American Express Company.

As the program develops further information may be obtained from Dr. Pearce Bailey, Secretary, Committee for the United States of the Sixth International Neurological Congress, National Institutes of Health, Bethesda 14, Md.

■ A national forum on "The South's future" will be held 11-13 Oct. in New Orleans in observance of the 50th anniversary of the Louisiana Section of the American Chemical Society. The program will include papers on industrial and technologic developments and on educational progress and shortcomings as applied to training of men for technical and scientific fields. In addition, papers will be presented that will summarize the present position of research activities in the South. Finally, discussions will be held on each day of the series to explore ways and means of directing the attention of young people to scientific careers.

A meeting of high-school students, who have been local winners in a nationally sponsored scholarship program, will run concurrently with the adult program. Scholarships will be awarded for the best presentation on the subject "What science is doing to improve my community." The program will end with presentation of awards, which include a \$2000 scholarship to the winning student plus a \$2000 grant to his chosen college or university. A \$500 award will be given to the high-school teacher who is judged to have evinced the greatest scientific interest in his students.

Among the speakers taking part in the meeting are the following: Ralph T. Overman, Institute of Nuclear Studies, Oak Ridge, Tenn., who will discuss "Utilization of radioisotopes"; H. L. Bevis, president emeritus, Ohio State University, who will be a member of a panel discussion on the "Importance of the man in industry, education, and government"; Stuart W. Churchill, University of Michigan, who will participate in

the round-table discussion on "The training of young technical employees"; and Roger Williams, president-elect of the ACS, who will represent education in a discussion of "Research in industry, education, and government." For further information, write to M. Benton Naff, Department of Chemistry, Loyola University, New Orleans, La.

Forthcoming Events

October

1-2. American Soc. of Photogrammetry, semiannual, Denver, Colo. (C. E. Palmer, ASP, 1515 Massachusetts Ave., NW, Washington 5.)

1-3. Institute of Radio Engineers, Canadian convention, Toronto, Canada. (G. Sinclair, Electrical Engineering Dept., Univ. of Toronto, Toronto.)

1-3. National Electronics Conf., 12th annual, Chicago, Ill. (NEC, 84 E. Randolph St., Chicago 1.)

1-4. American Dental Assoc., annual, Atlantic City, N.J. (H. Hillenbrand, ADA, 222 E. Superior St., Chicago 11, Ill.)

1-4. Semiconductor Symposium, Cleveland, Ohio. (M. F. Lamorte, Semiconductor Dept., Westinghouse Electric Corp., Youngwood, Pa.)

1-5. American Inst. of Electrical Engineers, fall general, Chicago, Ill. (N. S. Hibshman, AIEE, 33 W. 39 St., New York 18.)

1-5. International Cong. on Medical Records, 2nd, Washington, D.C. (Miss G. L. Perkins, American Assoc. of Medical Record Librarians, 510 N. Dearborn St., Chicago 10, Ill.)

1-10. Weights and Measures, international committee, Paris, France. (C. Volet, International Bureau of Weights and Measures, Pavillon de Breteuil, Sevres (Seine-et-Oise), France.)

2-5. Industrial Medicine, intern. cong., Vienna, Austria. (C. Frieberger, Hygienisches Universitäts Institut, Kinderspitalgasse 15, Vienna IX.)

2-14. Engineers Cong., 2nd international Federation of National Associations of Engineers, Zurich, Switzerland. (Federation Internationale d'Associations Nationales d'Ingenieurs, 19, rue Blanche, Paris 9^e, France.)

8. Science and Human Welfare, international conf., American Inst. of Geonomy and Natural Resources, Washington, D.C. (R. M. Field, AIGNR, South Duxbury, Mass.)

8-9. Shortage of Engineers and Scientists, conf., New York, N.Y. (E. S. Burdell, Cooper Union for the Advancement of Science and Art, Cooper Sq., New York 3.)

8-10. National Clay Conf., 5th, Urbana, Ill. (R. E. Grim, Univ. of Illinois, Urbana.)

8-12. American College of Surgeons, 42nd annual clinical cong., San Francisco, Calif. (ACS, 40 E. Erie St., Chicago 11, Ill.)

8-12. International Decennial Review Conf. on Tissue Culture, Woodstock, Vt. (P. R. White, Jackson Memorial Laboratory, Bar Harbor, Me.)

8-12. National Metal Cong., 38th an-

nual, Cleveland, Ohio. (American Inst. of Mining, Metallurgical and Petroleum Engineers, 29 W. 39 St., New York 18, N.Y.)

8-12. Pan-American Federation of Engineering Societies, 4th convention, Mexico, D.F., Mexico. (S. E. Reimel, Engineers Joint Council, 29 W. 39 St., New York 18.)

8-13. International Cancer Cytology Cong., Chicago, Ill. (A. H. Dearing, College of American Pathologists, Prudential Plaza, Chicago 1.)

9-10. Air Research and Development Command Science Symposium (classified), 4th annual, Boston, Mass. (Headquarters, ARDC, U.S. Air Force, P.O. Box 1395, Baltimore 3, Md.)

9-12. American Dietetic Assoc., 39th annual, Milwaukee, Wis. (Mrs. T. Pollen, ADA, 620 N. Michigan Ave., Chicago 11, Ill.)

9-15. World Medical Assoc., 10th general assembly, Havana, Cuba. (L. H. Bauer, WMA, 345 E. 46 St., New York, N.Y.)

10-12. Indiana Acad. of Science, Bloomington. (W. A. Daily, Eli Lilly Research Laboratories, Indianapolis 6, Ind.)

10-18. Arid Zone Climatology with Special Reference to Microclimatology, international symposium, Melbourne and Canberra, Australia. (UNESCO, 19 Avenue Kléber, Paris 16^e, France.)

11-12. International Scientific Radio Union, U.S. National Committee, Berkeley, Calif. (J. P. Hagen, 2101 Constitution Ave., NW, Washington 25.)

14-17. Society of American Foresters, Memphis, Tenn. (H. Clepper, SAF, 17th and Pennsylvania Ave., NW, Washington 6.)

14-19. American Acad. of Ophthalmology and Otolaryngology, annual, Chicago, Ill. (W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn.)

15-17. Assoc. of Official Agricultural Chemists, annual, Washington, D.C. (W. Horwitz, Box 540, Benjamin Franklin Station, Washington 4.)

15-17. Soil Conservation Soc. of America, Tulsa, Okla. (H. W. Pritchard, SCSA, 1016 Paramount Bldg., Des Moines, Iowa.)

15-18. American Veterinary Medical Assoc., annual, San Antonio, Tex. (J. G. Hardenbaugh, AVMA, 600 S. Michigan Ave., Chicago 5, Ill.)

15-19. American Soc. of Civil Engineers, annual, Pittsburgh, Pa. (W. H. Wisely, ASCE, 33 W. 39 St., New York 18.)

15-26. New York Acad. of Medicine, annual graduate fortnight, New York, N.Y. (Secretary, Graduate Fortnight, NYAM, 2 E. 103 St., New York 29.)

16-17. National Acad. of Economics and Political Science, Washington, D.C. (D. P. Ray, George Washington Univ., Washington 6.)

16-18. Conference on Magnetism and Magnetic Materials, Boston, Mass. (T. O. Paine, Measurements Laboratory, General Electric Co., West Lynn, Mass.)

17-18. International Union of Therapeutics, cong., Paris, France. (A. Lemaire, 54, rue de Saxe, Paris 7.)

(See issue of 17 August for comprehensive list)

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(above) Nuclear-Chicago scintillation detector is lowered into water for tracing the radioactive sewage effluent at varied depths over a 25 square mile area. (right) Gamma-ray spectrometer system, ratemeter and recorder on laboratory ship measure and chart traces of radioactive scandium during 36-hour period of experiment.

RADIOACTIVITY HELPS PREVENT BEACH POLLUTION FROM SEWAGE EFFLUENT

In a unique experiment just completed in Santa Monica Bay, California, radioactive isotopes were successfully used to trace the dispersion of sewage effluent in ocean waters. The results are helping to establish proper design procedures to insure against beach pollution in a current expansion of the Los Angeles sewage system.

The tracer experiment was a joint project of Hyperion Engineers, Nuclear Science and Engineering Corporation and the Hancock Foundation of the University of Southern California. Twenty curies of scandium-46 were mixed with sewage effluent and discharged into the sea. Scientists aboard a laboratory ship then took radioactive measurements over a wide area to determine dilution rate and direction of diffusion.

Since this was a "one-shot" experiment, the dependability and overall sensitivity of the equipment were extremely important. The instruments chosen, including the DS5-3 scintillation detector, 1810 gamma-ray spectrometer, 181 scaler and 1620 ratemeter were standard Nuclear-Chicago catalog items.

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