

Meetings

Calorimetry

Over 100 calorimetrists from the United States, Canada, and Europe gathered in Yale University's Sterling Chemistry Laboratory from 10 to 12 September for the 14th annual Calorimetry Conference. Under the chairmanship of David White (Ohio State University) they heard and discussed 30 technical papers covering nearly all phases of calorimetry—heat capacity measurements at temperatures as low as 0.1°K and as high as 1400°K, precision reaction and bomb calorimetry, solution calorimetry, and determinations of stored energy in solids.

Most of the papers were concerned with topics not even mentioned at early calorimetry conferences, and many reported on developments of the past few months. Nevertheless, as calorimetric techniques are extended to more extreme conditions, the problems that led to the founding of the conference remain, under new guises. The need for better temperature-measuring devices—the first item on the agenda of the 1st Calorimetry Conference—was emphasized again in seven papers that reported on research at temperatures be-

low 11°K. No device comparable to the platinum resistance thermometer now in general use for measurements above 11°K is yet available for the very low temperatures at which some of the most important calorimetric research is now being done. However, the conference heard enthusiastic reports on a device that may extend precision thermometry to at least 1°K—the germanium resistance thermometer developed at Bell Telephone Laboratories. Bell furnished 12 of these thermometers for a Calorimetry Conference test program involving 11 different laboratories. Three papers at the Yale conference described the first results of this program, which are so promising that the conference plans to seek a manufacturer of additional units for a more extensive testing program.

Feature addresses were given by George S. Parks (Stanford University) and Lars Onsager (Yale University). At the annual banquet, Parks delivered the Hugh M. Huffman Memorial Lecture, "Some Remarks on the Thermodynamic Properties of Organic Compounds." Parks and one of his first graduate students, the late Dr. Huffman, started the first systematic calorimetric studies of organic compounds at Stanford over 30 years ago. Parks traced the history of thermodynamic

research on organic substances and the role that improvement of calorimetric methods has played in the remarkable progress made in the last three decades.

Onsager gave the principal lecture of the technical sessions, on "Cooperative Phenomena," a field in which he has developed much of the basic theory. Many papers at each calorimetry conference describe experimental studies of cooperative phenomena, and Onsager outlined the approaches one may take in seeking a theoretical understanding of such effects. Admitting that three-dimensional treatments of critical phenomena by statistical mechanics seem hopelessly complex, he dwelt mostly on more simplified treatments that give results.

In addition to the objective of promoting better calorimetric research, the conference also is concerned with publication policies relating to calorimetric and thermodynamic articles. A "resolution regarding published calorimetric data" adopted by the 8th conference, in 1953, has proved to be valuable to editors and authors alike in establishing consistent policies based on the opinions of experts in the field. Because calorimetric research has expanded into many areas not covered by the 1953 resolution, the 14th conference established a committee headed

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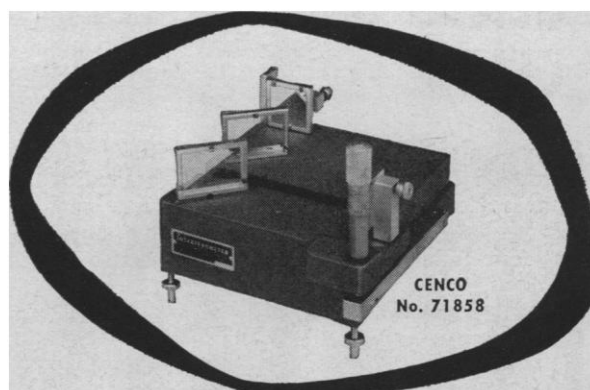
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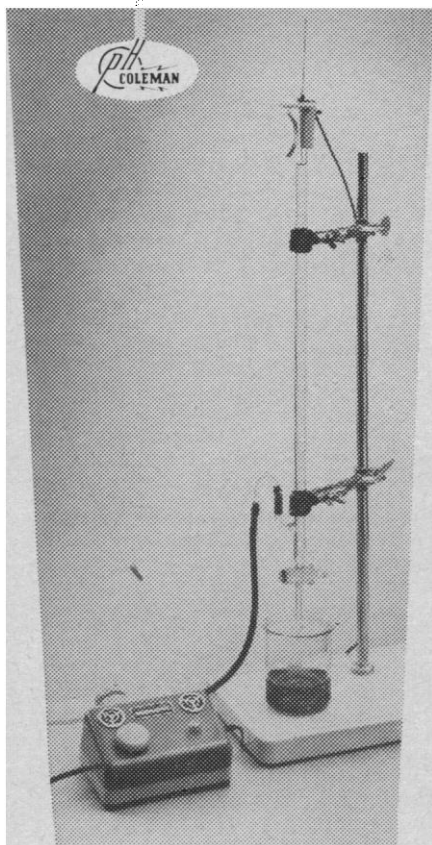
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by J. P. McCullough to consider revising and extending the earlier recommendations.

Edgar F. Westrum, Jr. (University of Michigan) and Stig Sunner (University of Lund, Sweden) presented a proposal of the IUPAC Commission on Thermodynamics for a joint meeting in 1961 of the Calorimetry Conference and the subcommissions on Experimental Thermochemistry and Experimental Thermodynamics. The conference unanimously approved the proposal for a joint meeting to be held either before or after the biennial IUPAC meeting that year in Montreal, Canada. Plans will begin immediately for what should be one of the most important international conferences ever held in the field of calorimetry.

At the annual election, the following members were named to conference offices: chairman, J. P. McCullough (Petroleum Thermodynamics Laboratory, Bureau of Mines); chairman-elect, D. W. Osborne (Argonne National Laboratory); directors, 1959 to 1962, N. E. Phillips (University of California, Berkeley) and J. M. Sturtevant (Yale University). Other officers are C. E. Messer (Tufts University), secretary-treasurer, and David White, D. H. Andrews (Johns Hopkins University), J. E. Kunzler (Bell Telephone Laboratories), and J. A. Morrison (National Research Council, Ottawa), directors.

JOHN P. MCCULLOUGH
Bartlesville, Oklahoma

Forthcoming Events

February

10-11. Gas Cooled Reactor, symp., Philadelphia, Pa. (F. L. Jackson, Franklin Inst., Philadelphia, Pa.)

10-12. American Acad. of Occupational Medicine, Williamsburg, Va. (L. B. Shone, Bureau of Medicine and Surgery, Navy Dept., Washington 25.)

10-12. Solid States Circuit Conf., Philadelphia, Pa. (T. R. Finch, Bell Telephone Laboratories, Murray Hill, N.J.)

10-13. National Assoc. for Research in Science Teaching, 33rd annual, Chicago, Ill. (C. M. Pruitt, Univ. of Tampa, Tampa, Fla.)

10-13. National Soc. of College Teachers of Education, Chicago, Ill. (E. J. Clark, Indiana State Teachers College, Terre Haute.)

11. Protein and Amino Acid Requirements of Swine, Chicago, Ill. (J. T. Sime, Assoc. of Vitamin Chemists, Evaporated Milk Assoc., 228 N. La Salle St., Chicago 1.)

11-13. Society of Univ. Surgeons, Minneapolis, Minn. (B. Eiseman, 4200 E. Ninth Ave., Denver 20, Colo.)

14-18. American Inst. of Mining, Metallurgical and Petroleum Engineers, annual, New York, N.Y. (E. O. Kirkendall, AIME, 29 W. 39th St., New York 18.)

16. Astronomical Soc. of the Pacific an-

nual, San Francisco, Calif. (S. Einarsson, Leuschner Observatory, Univ. of California, Berkeley 4.)

18-19. Chemical Inst. of Canada (Protective Coatings Div.), Toronto, Ont., and Montreal, Que., Canada. (Scientific Liaison Office, National Research Council, Sussex Drive, Ottawa, Canada.)

18-20. National Soc. of Professional Engineers, winter, Wichita, Kan. (P. H. Robbins, NSPE, 309 Bancroft Bldg., Univ. of Nebraska, Lincoln.)

21-24. American Inst. of Chemical Engineers, Atlanta, Ga. (F. J. Van Antwerpen, AICE, 25 W. 45 St., New York 36.)

22-25. Technical Assoc. of the Pulp and Paper Industry, annual, New York, N.Y. (J. Winchester, TAPPI, 155 E. 44 St., New York 17.)

22-4. Scientific Management, 12th intern. cong., Sydney and Melbourne, Australia. (C. M. Gray, Federal Council of the Australian Inst. of Management, Western House, 83 William St., Melbourne, C.1, Victoria, Australia.)

24-26. Biophysical Soc., 4th annual, Philadelphia, Pa. (O. H. Schmitt, Biophysical Soc., Chairman, Program Committee, Univ. of Minnesota, Minneapolis.)

25-27. American Orthopsychiatric Assoc., Chicago, Ill. (Miss M. F. Langer, 1790 Broadway, New York 19.)

25-27. Cell Physiology of Neoplasia (14th annual symp. on fundamental cancer research), Houston, Tex. (Editorial Office, Univ. of Texas M. D. Anderson Hospital, Texas Medical Center, Houston 25.)

26. Highway Geology, 11th annual symp., Tallahassee, Fla. (W. F. Tanner, Geology Dept., Florida State Univ., Tallahassee.)

28-5. American College of Allergists, Miami Beach, Fla. (E. Bauers, 2160 Rand Tower, Minneapolis 2, Minn.)

29-3. American College of Surgeons, Boston, Mass. (H. P. Saunders, 40 E. Erie St., Chicago, Ill.)

29-4. Pittsburgh Conf. on Analytical Chemistry and Applied Spectroscopy, Pittsburgh, Pa. (L. P. Melnich, U.S. Steel Corp., Monroeville, Pa.)

March

3-5. American Acad. of Forensic Sciences, Chicago, Ill. (W. J. R. Camp, AAFS, 1853 W. Polk St., Chicago 12.)

4-6. National Wildlife Federation, Dallas, Tex. (C. H. Callison, 232 Carroll St., NW, Washington 12.)

6-13. American Otorhinologic Soc. for Plastic Surgery, Miami Beach, Fla. (J. G. Gilbert, 75 Barberry Lane, Roslyn Heights, N.Y.)

7-9. Wildlife Management Inst., Dallas, Tex. (C. R. Gutermuth, 709 Wire Bldg., Washington 5.)

7-11. American Soc. of Civil Engineers, New Orleans, La. (E. S. Kirkpatrick, ASCE, 33 W. 39 St., New York 18.)

10. Recent Developments in Poultry Nutrition (Assoc. of Vitamin Chemists), Chicago, Ill. (J. T. Sime, Director of Research, Evaporated Milk Assoc., 228 N. La Salle St., Chicago 1.)

13-14. American Otolological Soc., Miami Beach, Fla. (L. R. Boies, University Hospital, Minneapolis 14.)