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are therefore vital to obtaining significant calculations. It was evident at the meeting that a considerable amount of effort has gone into the collection and organization of good nuclear data. More than a dozen systems have been developed to process evaluated nuclear data. Perhaps the most advanced nuclear data system, the Evaluated Nuclear Data File, is being worked on at the Sigma Center at Brookhaven National Laboratory. Most nuclear data will be primarily available through inquiry to some computer system.

The time behavior of reactors is receiving increased emphasis. W. K. Ergen (ORNL) pointed out a number of mathematical problems in nuclear safety analysis which would require additional computations. However, because large reactors can lead to spatial instability in the flux, it is becoming necessary to consider spatial kinetics problems. Judging by papers presented from the United Kingdom and France it appears that this is an area of reactor computation in which the United States does not lead.

Depletion codes continue to be based on a series of steady-state diffusion codes. The new interest appears to be centered about allowing the user to specify the depletion chains of interest to him. Depletion or burn-up codes are tending to become systems or linked calculations and, for example, the KARE and NOVA systems, allow depletion calculations to be selected.

The usual competition was present between advocates of probabilistic methods (Monte Carlo) and deterministic methods. On the deterministic side, some results were shown for supposedly complex problems for the transport equation which gave good comparative results with Monte Carlo codes. The deterministic methods used only a fraction of the machine time required by the Monte Carlo codes. Two papers dealing with Monte Carlo codes, however, indicated that, by astute techniques, it was possible to reduce the computer time and still get satisfactory results. L. H. Underhill (United Kingdom) commented that a Monte Carlo program had the advantage of eliminating unnecessary human thinking and allowed the computer to do the real brute-force work. After comparing some deterministic and probabilistic results, the comment was attributed to Bengt Carlson that his faith was restored in the Monte Carlo method because it agreed so well with the deterministic methods.
This conference was very valuable to those present and will also be valuable to those who will receive the conference proceedings. Two of the "facetious" remarks made by J. J. Syrett (United Kingdom) point out the concern of man and computers. He commented, in reference to the new faster and bigger computers that are appearing, that "a sort of Parkinson's Law applies to computing in that the computing requirements always expand to fill the machine available." His second comment was that "the really important question was not the cost per operation on the computer but the cost per useful piece of output that one gets off the computer."

The meeting was jointly sponsored by Argonne National Laboratory, European Nuclear Energy Agency, and the Mathematics and Computations Division of the American Nuclear Society.

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Forthcoming Events

September


19-23. World Medical Assoc., 19th general assembly, London, England. (H. S. Gear, 10 Columbus Circle, New York 10019)


20. Photo-Electronic Image Devices as Aids to Scientific Observation, symp., London, England. (G. V. McGee, Dept. of Physics, Imperial College of Science and Technology, South Kensington, London S.W.7)


20-24. Biochemistry, 8th Latin meeting, Lisbon, Portugal. (S. F. Gomes da Costa, Laboratorio de Quimica Fisiologica, Faculdade de Medicina, Hospital de Santa Maria, Lisbon)


20-24. International Council of Societies of Industrial Design, 4th general assembly and congr., Vienna, Austria. (Mrs. D. de

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20-27. Comparative and Cellular Pathology of Epilepsy, symp., Liblice, Czechoslovakia. (F. Hrabal, Foreign Relations Dept., Czechoslovak Academy of Sciences, Narodni tr. 3, Prague 1)

21-23. Chemurgic conf., Columbus, Ohio. (J. Tichnor, Chemurgic Council, 350 Fifth Ave., New York, N.Y.)


21-23. Magnetism, European conf., Vienna, Austria. (Verein Deutscher Eisenhüttenleute, Breit Str. 27, Düsseldorf, Germany)


21-24. Practice of Gas Chromatography, 4th annual mtg., St. Louis, Mo. (N. Brenner, Perkin-Elmer Corp., Main Ave., Norwalk, Conn.)


22-25. Committee of European Aca- rolest-w, symp., Milan, Italy. (G. Mathys, Stations Federales d'Essais Agricoles, Lausanne, Switzerland)


22-26. Paläontologische Gesellschaft, mtg., Zurich, Switzerland. (E. Kuhn-Schneider, Paläontologisches Institut d. Universitats, Zürich, Künslingerasse 16, 8006, Zurich)

22-28. Radiology, 11th intern. congr., Rome, Italy. (Secretariat, Via Reno 21, Rome)

23-25. French Medical Congr., Paris, France. (M. Bricaire, 40 rue Scheffer, Paris 16)


23-26. Mycology, tripartite conf., Germany, Austria, Switzerland: Klagenfurt, Austria. (Ostrian Mycology Soc., Postfach 200, Vienna 1)

23-28. Electronics and Vacuum Physics, 3rd Czechoslovak conf., Prague, Czechoslovakia. (Organizing Committee, Ke Karlovi 5, Dept. of Electronics and Vacuum Physics, Prague 2)

24-25. Communications, 13th conf., Cedar Rapids, Iowa. (Inst. of Electrical and Electronics Engineers, Box A, Lenox Hill Station, New York 21)


26-29. American Inst. of Chemical En- gineers, 57th natl., Minneapolis, Minn. (AIChE, 345 E. 47 St., New York 10017)

27. Society for Pediatric Radiology, Washington, D.C. (J. L. Gwinn, Children's Hospital, 4614 Sunset Blvd., Los Angeles, Calif.)


27-1. Community Oral Health, hemispheric conf., San Juan, P.R. (N. O. Harris, School of Dentistry, Univ. of Puerto Rico, San Juan 00905)

27-1. Urology, French congr., Paris, France. (J. Michon, French Assoc. of

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symp., Univ. of Illinois, Urbana. (D. W. Compton, Dept. of Physics, Univ. of Illinois, Urbana)


11-13. Manned Spaceflight. 4th meeting, St. Louis, Mo. (J. F. Yardley, McDonnell Aircraft Corp., P.O. Box 516, St. Louis)

11-13. National Acad. of Sciences, fall meeting, Univ. of Washington, Seattle. (H. Neurath, Dept. of Biochemistry, Univ. of Washington, Seattle 98105)

11-13. American Record Management Assoc., 10th annual conf., Minneapolis, Minn. (L. Loveless, Office Services, Honeywell, Inc., 2701 Fourth Ave., S, Minneapolis 55408)


11-14. American Oil Chemists’ Soc., fall meeting, Cincinnati, Ohio. (AOCS, 35 E. Wacker Dr., Chicago, Ill. 60600)


11-23. International Organization for Standardization, Milan, Italy. (Soc. of Motion Picture and Television Engineers, 9 E. 41 St., New York 10017)

12-13. Cardio-Renal Consequences of Sustained Hypertension, seminar, Philadelphia, Pa. (Miss S. Rosen, Symposium Office, Hahnemann Medical College and Hospital, 230 N. Broad St., Philadelphia 19102)

12-14. Analytical Chemistry in Nuclear Technology, 9th conf., Gatlinburg, Tenn. (C. D. Susano, Oak Ridge Natl. Laboratory, P.O. Box X, Oak Ridge, Tenn. 37831)


13. Medical Physics, seminar, New York, N.Y. (American Inst. of Physics, 335 E. 45 St., New York 10017)


13-15. Detonation, 4th symp., White Oak, Silver Spring, Md. (S. J. Jacobs, U.S. Naval Ordnance Laboratory, White Oak, Silver Spring 20910)


13-16. Tau Beta Pi Assoc., Inc., Univ. of Maryland, College Park. (R. H. Nagel, 508 Dougherty Engineering Bldg„ Univ. of Tennessee, Knoxville)

13-17. Soil Biology, first Latin American colloquium, Bahia Blanca, Argentina.

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<td>$134.00</td>
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<td>55.50</td>
<td>61.00</td>
<td>70.50</td>
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<td>First Year Net Premium</td>
<td>$78.50</td>
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Metallurgy, annual western meeting, Winnipeg, Canada. (CIMM, 906 Drummond Bldg., 1117 St. Catherine St. W., Montreal 2, P.Q., Canada)


18–21. Advances in Gas Chromatography, 3rd intern. symp., Houston, Tex. (A. Zlatkis, Dept. of Chemistry, Univ. of Houston, Houston)


18–22. American Soc. of Civil Engineers, Kansas City, Mo. (W. H. Wisely, ASCE, 345 E. 47 St., New York 10017)


18–22. Application of Radiosotopes in Gastroenterology, symp., Lausanne, Switzerland. (A. Vannotti, Clinique Médicale Universitaire, Hôpital Cantonal, Lausanne)

18–22. American College of Surgeons, annual clinical congr., Atlantic City, N.J. (American College of Surgeons, 55 East Erie St., Chicago, Ill. 60611)


20–21. Airborne Infection, 2nd intern. symp., Johns Hopkins School of Medicine, Baltimore, Md. (E. K. Wolfe, Fort Detruck, Frederick, Md. 21701)


20–22. Circuit and System Theory, Allerton Conf., Univ. of Illinois, Monticello. (M. E. Van Valkenburg, Dept. of Elec-

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27. New Mexico Acad. of Science, Albuquerque. (K. S. Bergstresser, 739 42nd St, Los Alamos, N.M.)
21–22. Copolymer conf., Ludwigshafen, Germany. (Deutsche Bunsen-Gesellschaft für Physikalische Chemie, Varrentrappstr. 40-42, 6 Frankfurt am Main, Germany)
27–22. Electrochemical Current Sources, symp., Frankfurt am Main, Germany. (Gesellschaft Deutscher Chemiker, Postfach 9075, 6 Frankfurt am Main)
21–23. Microminiaturization in Automatic Control, symp., Munich, Germany. (G. Müller, Siemens & Halske AG, Wernerwerk für Messtechnik, Postfach 834, Karlsruhe, Germany)
25–27. Chemical Engineering, 15th conf., Quebec, Que., Canada. (Chemical Inst. of Canada, 48 Rideau St., Ottawa 2, Ont.)
25–27. Society of Rheology, Case Inst. of Technology, Cleveland, Ohio. (J. C. Miller, Union Carbide Plastics Co., Bound Brook, N.J.)
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Recent Researches in the Fields of Hydrosphere, Atmosphere and Nuclear Geochemistry. Yano Miyake and Tadashiro Koyama, Eds. Maruzen, Tokyo, 1965. Twenty-five papers; the volume is dedicated to Ken Sugawara.


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Biological and Medical Sciences

Advances in Enzymology, and Related Subjects of Biochemistry, vol. 27. F. F. Nord, Ed. Interscience (Wiley), New York, 1965. 640 pp. Illus. $17.50. Ten papers: "Mechanism of enzyme action—An approach through the study of slow reactions" by Kunio Yagi; "Extrinsic cotton effects and the mechanism of enzyme action" by David D. Ulmer and Bert L. Vallee; "Contributions of EPR spectroscopy to our knowledge of oxidative enzymes" by Helmut Beinert and Graham Palmer; "Chemie und biochimie des di-sulfidautausches" by Von L. Lumper and H. Zahn; "Enzymology of the nucleus" by Günther Siebert and G. Bennett Humphrey; "The chemical basis of mutation" by L. E. Orgel; "The origin of life and the origin of enzymes" by A. I. Oparin; "Experimental approaches to the origin of life problem" by Howard H. Pattee; "Inhibition of folate biosynthesis and function as a basis for chemotherapy" by George H. Hitchings and James J. Burchall; and "The mechanisms of microbial oxidations of petroleum hydrocarbons" by A. C. van der Linden and G. J. E. Thijssen.


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Comparative Physiology and Pathology of the Skin. Arthur J. Rook and G. S. Walton, Eds. Davis, Philadelphia, 1965. 808 pp. Illus. $31. Fifty-five papers on the following topics: Comparative dermatology (5 papers); Hair (12 papers); Nutritional influences on the skin (3 papers); Porphyria and light sensitization (5 papers); The mast cell (6 papers); Immunology (13 papers); and Tumours of the skin (11 papers).


Grundriss der Ökologie. Mit besonderer Berücksichtigung der Tierwelt. Wilhelm


Isotopes in Experimental Pharmacology. Lloyd J. Roth, Ed. Univ. of Chicago Press, Chicago, 1965. 502 pp. Illus. $12.50. Thirty-six papers on the following topics: Isotopic labeling of drugs (2 papers); Activation analysis (2 papers); Autoradiography (8 papers); Compart- mental analysis and dynamic measurements (10 papers); Drug biotransformation (8 papers); Biochemical pharmacology (4 papers); and Deuterium isotope effect: Elucidation of pharmacological mechanisms (2 papers).


Proceedings, International Union of Physiological Sciences (Tokyo, Japan),
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Recent Progress in Hormone Research, vol. 21. Proceedings, 1964 Laurentian Hormone Conference (Lake George, N.Y.), September 1964. Gregory Pincus, Ed. Academic Press, New York, 1965. 687 pp. Illus. $24. Fourteen papers and discussions on the following topics: Recent advances in thyroid chemistry and physiology (2 papers); Hormones in normal and pathological physiology (2 papers); Pituitary hormones (3 papers); Steroid sex hormones (3 papers); Comparative endocrinology (2 papers); and Neurohormones (2 papers).


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**American Scientific Books, 1964–1965.** Phyllis B. Steckler, Ed. Bowker, New York, 1965. 260 pp. $8. This volume covers the period April 1964 through March 1965 and is a cumulation of titles, arranged by subject, from the monthly issues of the American Book Publishing Record. Scientific, medical, and technical books published in the United States are included, but juveniles and texts below the college level as well as government and business publications and most serials are excluded.


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An International Bibliography of Non-Periodical Literature on Documentation and Information. Compiled and edited by Hans Zell and Robert Macheney. Maxwell, Long Island City, N.Y., 1965. 300 pp. $4. The bibliography contains 1555 references to books, pamphlets, reports, and technical papers published during the years 1930 to 1964. Russian material is not included. Entries are arranged alphabetically by author.


Science in the Nineteenth Century. René Taton, Ed. Translated from the French edition (Paris, 1961) by A. J. Pomerans. Basic Books, New York, 1965. 646 pp. Illus. $17.50. Thirty-four papers on the following topics: Mathematics (3 papers); Mechanics and astronomy (2 papers); Physical science (7 papers); Geological sciences (2 papers); Biological sciences (14 papers); and Science and society (6 papers).


Selected Readings in the History of Chemistry. Compiled by Aaron J. Ihde and William F. Kieffer. Division of Chemical Education, American Chemical Soc., Easton, Pa., 1965. 304 pp. Illus. Paper, $4.50. Fifty-nine papers reprinted from the Journal of Chemical Education (1933 to 1963) on the following topics: General history (12 papers); Analytical chemistry (12 papers); Physical chemistry (10 papers); Inorganic chemistry (6 papers); Nuclear and radiochemistry (4 papers); Organic chemistry (11 papers); and Industrial chemistry (4 papers).


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AAAS Symposium Volume No. 74
Editor: Carle Hodge, Associate Editor: Peter C. Duisberg. 604 pages, 98 illustrations, references, index.
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Second printing, 1965
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