

tractile process. This is easy to understand if contraction of a fiber is brought about by the adsorption of a substance distributed between fiber and immersing solution, as discussed earlier by Katchalsky. However, it is not easy to visualize the microscopic reversal (by sudden stretch) of a process consisting of several cycles of dephosphorylation, as in some mechanisms proposed for shortening by sliding filaments (M. F. Morales).

Other Discussion

Further discussion posed the question of how to differentiate the several molecular mechanisms whereby long molecules may induce major changes in dimensions through interaction with a chemical reagent. One mechanism, discussed earlier by Flory and Mandelkern, depends on the existence of the polymer in two forms, crystalline and amorphous, the one form being converted into the other upon alteration of the chemical environment. Coexistence of the two forms would, under the simplest circumstances, be evidenced by a horizontal region in the isothermal stress-strain curve. T. Hill (University of Oregon) pointed out that such a stress-strain curve does not necessarily imply a crystalline-amorphous transition; there are other molecular mechanisms which result in similar stress-strain curves. J. J. Hermans said that whether a one- or two-phase description of a system is used is a matter of convenience. If a cooperative transition is involved, it is generally expeditious to treat the phenomenon as a phase transition.

H. Eisenberg (Mellon Institute) discussed the profound difference in the effects of potassium chloride and sodium chloride in producing phase transitions in some synthetic polyelectrolytes, under conditions of identical charge density; F. Oosawa reported similar findings in the influence of magnesium and calcium on the phase transition of polyacrylic acid.

In the course of the conference it became clear that a number of biological processes can be interpreted in terms of long-range elastic deformation of polymers. In no case, though, is the evidence for this mechanism conclusive; contraction preceded by an interaction between polymers could not be excluded. However, the lines of research by which these mechanisms might be distinguished were brought into sharper focus.

WILLIAM R. CARROLL
*National Institutes of Health,
Bethesda, Maryland*

H. EISENBERG
*Mellon Institute,
Pittsburgh, Pennsylvania*

RICHARD J. PODOLSKY
*Naval Medical Research Institute,
Bethesda, Maryland*

Forthcoming Events

September

6-10. Lower Metazoa, Comparative Biology and Phylogeny, 2nd symp., Asilomar, Pacific Grove, Calif. (M. B. Allen, Kaiser Foundation Research Inst., 14th and Cutting Blvd., Richmond, Calif.)

8-9. Technical Communications, 2nd annual, Dayton, Ohio. (D. G. Peterson, Jr., Soc. of Technical Writers and Editors, 4564 Marlin Ave., Dayton 16, Ohio)

8-10. American Political Science Assoc., New York, N.Y. (E. M. Kirkpatrick, 1726 Massachusetts Ave., NW, Washington 6, D.C.)

8-10. Great Issues of Conscience in Modern Medicine, Hanover, N.H. (G. O'Connell, Dartmouth College News Service, Hanover)

8-10. Parapsychological Assoc., 3rd. annual, New York, N.Y. (W. G. Roll, Parapsychology Laboratory, Duke Univ., Durham, N.C.)

8-18. History of Medicine, 17th intern. cong., Athens and Isle of Cos, Greece. (S. Oeconomos, Faculty of Medicine, National and Capodistrian Univ. of Athens, Odos panepistimiou, Athens, Greece)

10-11. Air Pollution, intern. cong., New York, N.Y. (A. B. Conlin, Jr., ASME, 29 W. 39th St., New York 18)

11-15. International College of Surgeons, 12th intern. cong., New York, N.Y. (M. Thorek, ICS, 850 W. Irving Park Rd., Chicago 13, Ill.)

11-16. American Chemical Soc., 138th annual, New York, N.Y. (A. T. Winstead, ACS, 1155 16th St., NW, Washington 6)

11-16. Illuminating Engineering Soc., natl. technical conf., Pittsburgh, Pa. (A. D. Hinkley, IES, 1860 Broadway, New York 23)

12-13. International Conf. on Trichinellosis, Warsaw, Poland. (Z. Kozar, Polish Parasitological Soc., Zaklad Parazytologii, PAN, Warszawa, Pasteura 3, Poland)

12-14. Entomological Soc. of Canada—Entomological Soc. of Saskatchewan, annual joint meetings, Saskatoon, Sask., Canada. (L. L. Reed, ESC, K. W. Neatby Bldg., Carling Ave., Ottawa, Canada)

12-15. Atomic Masses, intern. conf., Hamilton, Ontario, Canada. (H. E. Duckworth, Dept. of Physics, McMaster Univ., Hamilton)

12-15. Society of Automotive Engineers, Milwaukee, Wis. (R. W. Crory, SAE, Meetings Operation Dept., 485 Lexington Ave., New York 17)

12-16. International Council of the Aeronautical Sciences, 2nd intern. cong., Zurich, Switzerland. (J. B. Bidwell, Inst. of the Aeronautical Sciences, 2 E. 64 St., New York 21)

12-17. World Federation of Occupational Therapists, Sydney, Australia. (Liverpool School of Occupational Therapy, Victoria Rd., Huyton, Liverpool, England)

13-14. Bionics, symp., Dayton, Ohio. [Commander, Wright Air Development Division, Attention: WWRDA (Maj. J. E. Steele, Wright-Patterson Air Force Base, Ohio)]

13-15. Instruments and Measurements, 5th intern. conf., Stockholm, Sweden. (Tekn. Lic. Helge von Koch, Kungl. Tekniska Högskolan, Stockholm 70)

14-15. Aspects of Internal Irradiation

of Mammals, Saratoga, Wyo. (T. F. Dougherty, Univ. of Utah, Salt Lake City)

14-16. Tube Techniques, 5th natl. conf., New York, N.Y. (D. Slater, College of Engineering, Research Div., New York Univ., 346 Broadway, New York 13)

15-16. Engineering Management Conf., 8th annual, Chicago, Ill. (E. O. Kirkendall, AIME, 29 W. 39 St., New York 18)

15-17. Radio Soc. of Great Britain, natl. convention, Cambridge, England. (Secretary, RSGB Convention Committee, 37 Metcalfe Rd., Cambridge, England)

16-18. Cori's Ester and Phosphorylated Glucides, 1st intern. symp., Milan, Italy. (Segreteria Organizzativa del 1st Symposium Internazionale sull'estere di Cori e sui glucidi fosforilati, Via Modica 6, Milan)

16-21. European Cong. on Infantile Neuro-Psychiatry, Paris, France. (G. Be-laubre, 14 rue Drouot, Paris)

16-22. World Medical Assoc., Berlin, Germany. (General Secretary, WMA, 10, Columbus Circle, New York 19)

18-21. Forensic Pathology, 2nd intern., New York, N.Y. (C. Larsen, Tacoma General Hospital, Tacoma 5, Wash.)

18-25. Inter-European Cong. of Cardiology, 3rd, Rome, Italy. (V. Puddu, Clinica, Medica, Università-Policlinico, Rome)

19-21. Space Electronics and Telemetry, 5th natl. symp., Washington, D.C. (H. W. Royce, Glenn L. Martin Co., Mail Stop H-2035, Baltimore 3, Md.)

19-22. Research in Burns, 1st intern. cong., Bethesda, Md. (American Inst. of Biological Sciences, 2000 P St., NW, Washington 6)

20-23. Conf. on Pure Food Laws, London, England. (Secretariat, Pure Food Centenary 1960, 14 Belgrave Sq., London S.W.1)

20-24. Aeronautics, 4th European cong., Cologne, Germany. (Wissenschaftliche Gesellschaft für Luftfahrt, Eberplatz 2, Cologne)

20-7. International Atomic Energy Agency, 4th general conf., Vienna, Austria. (IAEA, 11 Kärntner Ring, Vienna 1)

21-22. Industrial Electronics, 9th annual symp., Cleveland, Ohio. (G. E. Hindley, Reliance Electric & Engineering Co., 24701 Euclid Ave., Cleveland 17)

21-23. National Power Conf., Philadelphia, Pa. (A. B. Conlin, Jr., ASME, 29 W. 39 St., New York 18)

22. Society of Plastics Engineers, Binghamton, N.Y. (T. A. Bissell, SPE, 65 Prospect St., Stamford, Conn.)

22-23. High Temperature Resistance and Thermal Degradation of Polymers, symp., London, England. (Symposium Subcommittee, Plastics and Polymer Group, Soc. of Chemical Industry, 14, Belgrave Sq., London, S.W.1)

22-26. Cancer Cytology, intern. conf., Madrid, Spain. (Miss E. L. Hughes, Pan American Cancer Cytology Soc., P.O. Box 633, Coral Gables, Fla.)

23-25. Inter-Society Cytology Council, annual, Chicago, Ill. (P. A. Younge, ISCC, 1101 Beacon St., Brookline 46, Mass.)

24-2. American Soc. of Clinical Pathologists, Chicago, Ill. (A. H. Dearing, 2115 Prudential Plaza, Chicago, Ill.)

25-28. American Inst. of Chemical Engineers, Tulsa, Okla. (F. J. Van Antwerpen, AICE, 25 W. 45 St., New York 36)

25-30. North American Assoc. of Alcoholism Programs, 11th annual conf., Banff, Alberta, Canada. (J. G. Strachan, Alcoholism Foundation of Alberta, 9910 103rd St., Edmonton, Alberta, Canada)

26-28. American Inst. of Electrical Engineers, petroleum industry conf., Oklahoma City, Okla. (R. S. Gardner, AIEE, 33 W. 39 St., New York 18)

26-28. American Soc. of Mechanical Engineers, petroleum mechanical engineering conf., New Orleans, La. (A. B. Conlin, Jr., ASME, 29 W. 39 St., New York 18)

26-28. Electronic Industries Assoc., natl. conv., Pittsburgh, Pa. (V. M. Graham, EIA, 11 W. 42 St., New York 36)

26-28. Standards Engineers Soc., annual, Pittsburgh, Pa. (J. A. Caffiaux, SES, 11 W. 42 St., New York 36)

26-30. Instrument Soc. of America, New York, N.Y. (W. H. Kushnick, ISA, 313 Sixth Ave., Pittsburgh 22, Pa.)

26-1. Natural Rubber Research Conf., Kuala Lumpur, Malaya. (Rubber Research Inst. of Malaya, P.O. Box 150, Kuala Lumpur)

27-29. Relative Humidity and Paper Test Methods, symp., Grand Rapids, Mich. (Technical Assoc. of the Pulp and Paper Industry, 155 E. 44 St., New York 17)

27-30. American Rocket Soc.—Power Systems Conf., Santa Monica, Calif. (R. L. Hohl, ARS, 500 Fifth Ave., New York 36)

27-30. American Roentgen Ray Soc., Atlantic City, N.J. (N. Jones, 20 N. Wacker Dr., Chicago 6, Ill.)

27-30. Association of Iron and Steel Engineers, annual conv., Cleveland, Ohio. (T. J. Ess, AISE, 1010 Empire Bldg., Pittsburgh, 22, Pa.)

27-30. Medical Photography, 1st intern. cong., Cologne, Germany. (Deutsche Gesellschaft für Photographie e.V., Köln, Nurmarkt 49, Germany)

28-1. International Soc. of Audiology, 5th cong., Bonn, Germany. (Prof. Langenbeck, Baumschuallee 29, Bonn)

28-5. Pan-Pacific Surgical Assoc., 8th cong., Honolulu, Hawaii. (F. J. Pinkerton, 230 Alexander Young Bldg., Honolulu 13)

30-1. American College of Radiology, Atlantic City, N.J. (F. H. Squire, Presbyterian-St. Luke's Hospital, 1753 W. Congress St., Chicago 12, Ill.)

30-1. American Medical Writer's Assoc., Chicago, Ill. (H. Swanberg, 510 Maine St., Quincy, Ill.)

October

1-2. Enzymes in the Manufacture, Storage and Distribution of Food, symp., London, England. (Society of Chemical Industry, 14 Belgrave Sq., London, S.W. 1)

2-5. American Inst. of Mining, Metallurgical and Petroleum Engineers, fall, Denver, Colo. (E. O. Kirkendall, AIME, 29 W. 39 St., New York 18)

2-6. Water Pollution Control Federation, 33rd annual, Philadelphia, Pa. (WPCF, 4435 Wisconsin Ave., Washington 16)

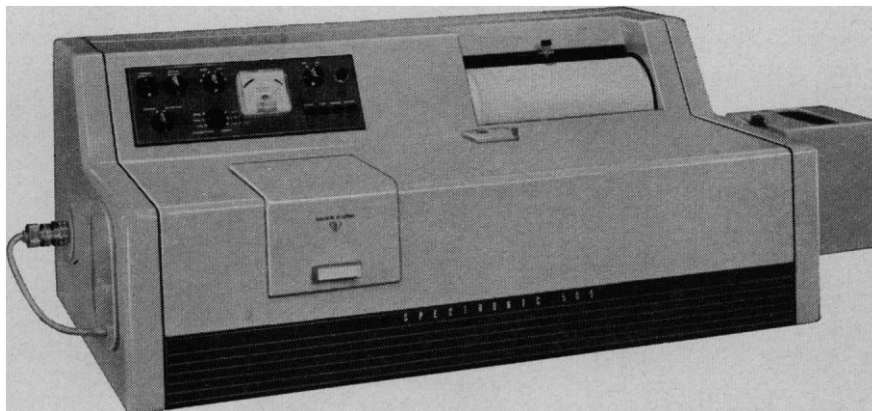
2-7. American Soc. of Plastic and Reconstructive Surgery, Los Angeles, Calif. (T. R. Broadbent, 508 E. S. Temple, Salt Lake City, Utah)

3-5. Applied Spectroscopy, 7th symp., Ottawa, Canada. (C. R. Langdon, Alu-

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3-5. Communications, 6th natl. symp., Utica, N.Y. (B. H. Baldrige, Communications Symp., Light Military Electronics Dept., General Electric Co., Utica)

3-5. Nuclear Science, 7th annual, Gatlinburg, Tenn. (H. E. Banta, Oak Ridge National Lab., P.O. Box X, Oak Ridge, Tenn.)

3-7. Atomic Energy, 5th intern. seminar, Wiesbaden, Germany. (Mr. Trebst, Diplom-Volkswirt, Generalsekretär, Internationale Studiengesellschaft e.V., Theodorenstr. 6-8, Wiesbaden)

4-6. Radio Interference Reduction, 6th conf., Chicago, Ill. (S. I. Cohn, Armour Research Foundation, 10 W. 35 St., Chicago)

4-7. Recent Developments in Research Methods and Instrumentation, 10th annual symp., Bethesda, Md. (J. B. Davis, Natl. Institutes of Health, Bethesda 14)

5-7. Accelerator Conf., Amsterdam, Netherlands. [J. S. Woldringh, High Voltage Engineering (Europa) N.V., Amersfoort, Netherlands]

5-8. American Acad. of Cerebral Palsy, 14th annual, Pittsburgh, Pa. (J. D. Russ, 1520 Louisiana Ave., New Orleans 15, La.)

6-10. American Assoc. of Textile Chemists and Colorists, natl. conf., Philadelphia, Pa. (G. P. Paine, AATCC, P.O. Box 28, Lowell, Mass.)

6-8. Clay Conf., 9th natl., Lafayette, Ind. (J. L. White, Agronomy Dept., Purdue Univ., Lafayette)

6-8. Society of Experimental Test Pilots, annual symp., Los Angeles, Calif. (SETP, 44919 N. Cedar Ave., Lancaster, Calif.)

8. Helminthological Soc. of Washington, 50th, College Park, Md. (Publicity Committee, HSW, Animal Disease and Parasite Research Branch, ARS, U.S. Department of Agriculture, Beltsville, Md.)

9-13. Electrochemical Soc., Houston, Tex. (Electrochemical Soc., 216 W. 102 St., New York 25)

9-14. American Acad. of Ophthalmology and Otolaryngology, Chicago, Ill. (W. L. Benedict, 15 Second St., S.W., Rochester, Minn.)

10-12. Human Factors and Bioastronautics, conf., Dayton, Ohio. (J. J. Harford, American Rocket Soc., 500 Fifth Ave., New York 36)

10-12. Industrial Health, cong., Charlotte, N.C. (Council on Occupational Health, AMA, 535 N. Dearborn St., Chicago 10, Ill.)

10-12. National Electronics, conf., Chicago, Ill. (T. F. Jones, Jr., School of EE, Purdue Univ., Lafayette, Ind.)

10-12. Operations Research Soc. of America, natl., Detroit, Mich. (H. J. Miser, ORSA, Research Triangle Inst., 505 W. Chapel Hill St., Durham, N.C.)

10-14. American College of Surgeons, San Francisco, Calif. (W. E. Adams, 40 E. Erie St., Chicago 11, Ill.)

10-14. American Soc. of Civil Engineers, annual conv., Boston, Mass. (W. H. Wisely, ASCE, 33 W. 39 St., New York 18)

11-13. Applications of Nuclear Energy, conf., Karlsruhe, Germany. (Ing. Küpfmüller, Deutsches Atomforum, Friedrichstr. 2 III, Düsseldorf, Germany)

11-13. Synthetic Rubber, 2nd intern. symp., London, England. (Rubber and Plastics Age, Gaywood House, Great Peter St., London, S.W. 1)

11-14. Audio Engineering Soc., 12th annual conv., New York, N.Y. (H. F. Olson, RCA Laboratories, Princeton, N.J.)

11-14. Inelastic Scattering of Neutrons in Solids and Liquids, symp., Vienna, Austria. (International Atomic Energy Agency, 11 Kärntner Ring, Vienna 1)

12-13. American Vacuum Soc., 7th natl. symp., Cleveland, Ohio. (AVS, Box 1281, Boston 9, Mass.)

12-14. Astronautics, 3rd annual symp., Los Angeles, Calif. (Maj. G. Colchagoff,

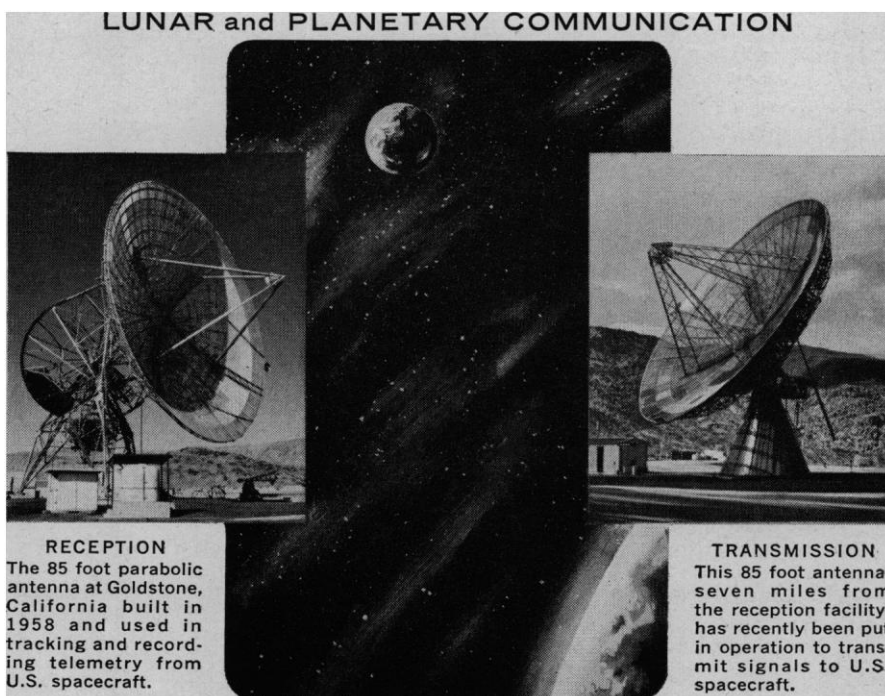
Propulsion Div., Air Force Office of Scientific Research, Washington 25)

12-14. Gaseous Electronics, 13th annual conf., Monterey, Calif. (N. L. Oleson, U.S. Naval Postgraduate School, Monterey)

12-14. Nuclear Reactor Chemistry, conf., Gatlinburg, Tenn. (C. D. Susano, Oak Ridge National Lab., P.O. Box Y, Oak Ridge, Tenn.)

13-15. Academy of Psychosomatic Medicine, Philadelphia, Pa. (B. B. Moss, 55 E. Washington, Chicago 2, Ill.)

13-14. Engineering Writing and Speech, natl. symp., Chicago, Ill. (M. Whitmer, Admiral Corp., 3800 W. Cortland St., Chicago 47)



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13-15. Optical Soc. of America, Boston, Mass. (M. E. Wurga, OSA, 1155 16 St., N.W., Washington 6)

14-15. Society of Photographic Scientists and Engineers, symp., Washington, D.C. (F. M. Brown, Photomechanisms, Inc., Box 67, Huntington Station, N.Y.)

15. American Soc. of Safety Engineers, annual, Chicago, Ill. (A. C. Blackman, ASSE, 5 N. Wabash Ave., Chicago 2)

16. American College of Dentists, Los Angeles, Calif. (O. W. Brandhorst, 4236 Lindell Blvd., St. Louis 8, Mo.)

16-22. High-Speed Photography, 5th intern. cong., Washington, D.C. (V. H. Allen, Soc. of Motion Picture and Television Engineers, 55 W. 42 St., New York 36)

16-22. Society of Motion Picture and Television Engineers, semi-annual conv., Washington, D.C. (C. S. Stodter, SMPTE, 55 W. 42 St., New York 36)

17-19. Adaptive Control Systems, symp., New York, N.Y. (H. Levenstein, W. L. Maxon Corp., 260 W. 34 St., New York)

17-19. American Oil Chemists' Soc., fall, New York, N.Y. (W. C. Ault, U.S. Department of Agriculture, Philadelphia 18, Pa.)

17-20. American Acad. of Pediatrics, Chicago, Ill. (E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill.)

17-20. American Dental Assoc., Los Angeles, Calif. (H. Hillenbrand, ADA, 222 E. Superior St., Chicago, Ill.)

17-21. Neutron Pile Research, symp., Vienna, Austria. (International Atomic

Energy Agency, 11 Kärntner Ring, Vienna 1)

17-22. Diagnosis and Treatment of Acute Radiation Injury, Geneva, Switzerland. (World Health Organization, Palais de Nations, Geneva)

17-26. Plastics Processing, intern. cong. and exhibition, Amsterdam and Utrecht, Netherlands. (Secretariat, c/o N. V. 't Raedthuys, Tesselschadestraat 5, Amsterdam-W, Netherlands)

18. Oak Ridge Inst. of Nuclear Studies, Oak Ridge, Tenn. (W. G. Pollard, Box 117, Oak Ridge)

18-21. American Dietetic Assoc., 43rd annual, Cleveland, Ohio. (M. L. Ross, Simmons College, The Fenway, Boston 15, Mass.)

19-20. American Geophysical Union, Moscow, Idaho. (A. N. Sayre, U.S. Geological Survey, Washington 25, D.C.)

19-21. Design of Experiments, 6th conf. (by invitation only), Aberdeen Proving Ground, Md. (F. G. Dressel, Office of Ordnance Research, Box CM, Duke Station, Durham, N.C.)

19-21. Space Navigation, symp., Columbus, Ohio. (Institute of Radio Engineers, 1 E. 79 St., New York 21)

19-26. Measuring Techniques and Automation, 2nd intern. cong., Düsseldorf, Germany. (Nordwestdeutsche Ausstellungs-Gesellschaft, Ehrenhof 4, Düsseldorf)

20-21. Hypervelocity, symp., Denver, Colo. (R. R. Dexter, IAS, 2 E. 64 St., New York 21)

20-22. Acoustical Soc. of America,

San Francisco, Calif. (V. Salmon, Stanford Research Inst., Menlo Park, Calif.)

20-22. Institute of Management Sciences, 7th intern., New York, N.Y. (J. Townsend, IMS, 30 E. 42 St., New York 17)

21-22. Research Approaches to Psychiatric Problems, symp., Galesburg, Ill. (T. T. Turlentes, Galesburg State Research Hospital, Galesburg)

21-25. American Heart Assoc., annual, St. Louis, Mo. (AHA, 44 E. 23 St., New York 10)

22. Midwest Solid State Conf., 8th annual, Lincoln, Neb. (J. W. Weymouth, Physics Dept., Univ. of Nebraska, Lincoln)

23-26. American College of Gastroenterology, Philadelphia, Pa. (D. Weiss, 33 W. 60 St., New York 23)

24-27. Hot Atom Effects, symp., Prague, Czechoslovakia. (International Atomic Energy Agency, 11 Kärntner Ring, Vienna 1, Austria)

25-27. American Standards Assoc., natl. conf., New York, N.Y. (G. F. Hussey, Jr., AST, 70 E. 45 St., New York 17)

26-28. Society for Industrial Microbiology, Conf. on Antimicrobial Agents, Washington, D.C. (SIM, 2000 P St., NW, Washington 6)

27-28. Cellulose Conf., 3rd, Syracuse, N.Y. (Cellulose Research Inst., State Univ. College of Forestry, Syracuse Univ., Syracuse 10)

27-28. Electron Devices, 6th annual, Washington, D.C. (J. Hornbeck, Bell Telephone Labs., Murray Hill, N.J.)

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