

were presented. E. E. Lindsey (University of Massachusetts), Daniel Sullivan (Shawinigan Resins), and David Chappellear (Monsanto) described how by continuously circulating an emulsion through a light scattering cell the particle size distribution in the emulsion can be continuously monitored. Donald G. LeGrand (General Electric) showed how the changes in stretched polymer films correlated with density changes can be separated from those correlated with orientation changes by studying the polarization of the scattered light. The scattering is time-dependent and reflects the changes in the crystalline superstructure accompanying the stretching.

The use of a pulsed laser for light scattering studies from polymer films was described in two papers, one by R. S. Moore and S. Matsuoka (Bell Telephone) on the crystallization of high molecular weight polyethylene, and one by P. Erhardt and R. S. Stein (University of Massachusetts) on determining the rates of deformation and recrystallization of spherulite after rapid stretching. H. Kawai (Massachusetts, on leave from Kyoto), Stein, and D. A. Keedy (Massachusetts) described a new apparatus for measuring rates of crystal orientation by dynamic x-ray diffraction studies from vibrating samples.

Papers on theories of rheo-optical properties were presented by E. H. Dill (University of Washington), C. L. Amba-Rao (Purdue), and M. Takayanagi, S. Uemure, and S. Minami (Kyushu University).

The conference was jointly sponsored by the Division of High Polymer Physics of the American Physical Society and the Polymer Research Institute of the University of Massachusetts. It preceded the fourth International Congress on Rheology, which met at Brown University 26-30 August. Papers presented at this conference will be published in series C of the *Journal of Polymer Science*.

RICHARD S. STEIN  
*Polymer Research Institute,  
University of Massachusetts, Amherst*

## Forthcoming Events

### June

11-13. **Manufacturing Chemists' Assoc.**, 92nd annual, White Sulphur Springs, W. Va. (MCA, 1825 Connecticut Ave., NW, Washington, D.C.)

11-13. **Population Assoc. of America,**

San Francisco, Calif. (P. C. Glick, Bureau of Census, Washington, D.C. 20233)

13-19. **World Medical Assoc.**, 18th general assembly, Helsinki, Finland. (H. S. Gear, 10 Columbus Circle, New York, N.Y. 10019)

14-17. **American Assoc. of Feed Microscopists**, 12th annual, Hot Springs, Ark. (G. M. Barnhart, Missouri Dept. of Agriculture, State Office Building, Jefferson City)

14-17. **American Nuclear Soc.**, 10th annual, Philadelphia, Pa. (O. J. DuTemple, 244 E. Ogden Ave., Hinsdale, Ill. 60502)

14-18. **Industrial Pharmaceutical Research**, 6th natl. conf., Land O'Lakes, Wis. (L. W. Busse, 190 Pharmacy Bldg., Univ. of Wisconsin, Madison 6)

14-18. **Health Physics Soc.**, 9th annual, Cincinnati, Ohio. (H. F. Kolde, Taft Sanitary Engineering Center, Cincinnati)

14-19. **Alpha Chi Sigma Fraternity**, Greenville, L.I., N.Y. (M. L. Griffin, 5503 E. Washington St., Indianapolis, Ind.)

14-19. **Cardiology**, 7th inter-American congr., Montreal, P.Q., Canada. (The Congress, 2052 St. Catherine St., W., Montreal 25)

14-20. **National Speleological Soc.**, annual conv., New Braunfels, Tex. (J. H. Estes, 2818 S. 39 St., Abilene, Tex. 79605)

15-16. **Association for Applied Gnotobiotics**, 4th symp., East Lansing, Mich. (C. K. Whitehair, Dept. of Pathology, Michigan State Univ., East Lansing)

15-17. **Lattice Defects in Quenched Metals**, intern. conf., Argonne, Ill. (The Conference, Bldg. 212, Argonne Natl. Laboratory, Argonne)

15-17. **Institute of Navigation**, 20th annual, New York, N.Y. (P. Rosenberg, 330 Fifth Ave., Pelham, N.Y. 10803)

15-17. **American Neurological Assoc.**, 89th annual, Atlantic City, N.J. (M. D. Yahr, 710 West 168 St., New York, N.Y.)

15-18. **American Soc. of Limnology and Oceanography**, 27th annual, Miami Beach, Fla. (G. H. Lauff, ASLO, Sapelo Island Research Foundation, Sapelo Island, Ga.)

15-18. **Materials**, 2nd intern. symp., Berkeley, Calif. (T. H. Chenoweth, 276 Hearst Mining Bldg., Univ. of California, Berkeley 94720)

15-19. **Antibiotics**, intern. congr., Prague, Czechoslovakia. (V. Vlček, Antibiotics Research Inst., Roztoky near Prague)

15-19. **Molecular Spectroscopy**, symp., Columbus, Ohio. (H. H. Nielsen, Dept. of Physics, Ohio State Univ., 174 W. 18 Ave., Columbus 43210)

15-19. **Technical Writers**, 12th annual inst., Troy, N.Y. (J. R. Gould, Rensselaer Polytechnic Inst., Troy)

15-21. **Women Engineers and Scientists**, 1st intern. conf., New York, N.Y. (E. Eaves, 18 Third Ave., Port Washington, N.Y. 11050)

15-3. **Relativity**, teaching at undergraduate level, Arlington, Tex. (J. Ellis, Dept. of Physics, Arlington State College, Arlington)

15-4 Sept. **Gordon Research Conf.**, New Hampshire. (W. G. Parks, Dept. of Chemistry, Univ. of Rhode Island, Kingston)

16-17. **Computer Augmentation of Human Reasoning**, symp., Washington, D.C.

(W. D. Orr, TRW Computer Div., 8433 Fallbrook Ave., Canoga Park, Calif.)

16-18. **Entomological Soc. of America**, Pacific Branch, annual, Long Beach, Calif. (W. W. Allen, 112 Agric. Hall, Dept. of Entomology, Univ. of California, Berkeley)

17-19. **Microscopy**, 11th intern. symp., Chicago, Ill. (MICRO-64, McCrone Research Inst., 451 E. 31 St., Chicago 60616)

17-20. **American College of Angiology**, Las Vegas, Nev. (A. Halpern, 11 Hampton Court, Great Neck, N.Y.)

17-20. **International Assoc. for the Study of the Bronchi**, 14th congr., Vienna, Austria. (Secretariat, The Congress, c/o Wiener Medizinische Akademie für Ärztliche Fortbildung, Aslerstr. 4, Vienna 9)

18-19. **Patent, Trademark, and Copyright Research Inst.**, 8th annual conf., George Washington Univ., Washington, D.C. (PTCR Inst., George Washington Univ., Washington, D.C. 20006)

18-19. **American Rheumatism Assoc.**, San Francisco, Calif. (J. A. Coss, Jr., 20 E. 76 St., New York, N.Y. 10021)

18-20. **Community Psychiatry**, conf., Univ. of Wisconsin, Madison. (L. M. Roberts, 1300 University Ave., Madison)

18-20. **Endocrine Soc.**, San Francisco, Calif. (H. H. Turner, 200 N. Walker, Oklahoma City, Okla.)

18-20. **American Assoc. of Physics Teachers**, summer meeting, Madison, Wis. (H. R. Crane, Dept. of Physics, Univ. of Michigan, Ann Arbor)

18-20. **Space Technology**, 4th European symp., Rome, Italy. (A. Eula, Associazione Italiana Razzi, Piazza Santo Bernardo 101, Rome)

18-20. **Sulfite Pulping**, conf., Chicago, Ill. (Technical Assoc. of the Pulp and Paper Industry, 360 Lexington Ave., New York, N.Y. 10017)

18-22. **American College of Chest Physicians**, San Francisco, Calif. (M. Kornfeld, 112 E. Chestnut, Chicago, Ill.)

19. **Parenteral Drug Assoc.**, Philadelphia, Pa. (The Association, Broad and Chestnut Sts., Philadelphia 7)

19-20. **American Geriatrics Soc.**, 21st annual, San Francisco, Calif. (AGS, 10 Columbus Circle, New York, N.Y. 10019)

19-27. **Chemical Engineering**, European conv., Frankfurt am Main, Germany (Chicago Section, American Chemical Soc., 86 E. Randolph St., Chicago 1, Ill.)

21. **Surface Physics**, Providence, R.I. (W. H. Brattain, Bell Telephone Laboratories, Murray Hill, N.J. 17971)

21-23. **Society for Investigative Dermatology**, 25th annual, San Francisco, Calif. (H. Beerman, SID, 255 S. 17 St., Philadelphia, Pa. 19103)

21-24. **American Soc. of Agricultural Engineers**, Fort Collins, Colo. (J. L. Butt, ASAE, 420 Main St., St. Joseph, Mich.)

21-25. **Air Pollution Control Assoc.**, 57th annual, Houston, Tex. (The Association, 4400 Fifth Ave., Pittsburgh, Pa.)

21-25. **American Medical Assoc.**, San Francisco, Calif. (F. J. L. Blasingame, N. Dearborn, Chicago, Ill. 60610)

21-26. **American Soc. for Testing and Materials**, 67th annual, Chicago, Ill. (ASTM, 1916 Race St., Philadelphia 3, Pa.)

22-24. **American Dairy Science Assoc.**,



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22-24. **Medicinal Chemistry**, 9th natl. symp., Minneapolis, Minn. (A. T. Winstead, American Chemical Soc., 1155 16th St., NW, Washington, D.C. 20006)

22-24. Association for Research in **Ophthalmology**, San Francisco, Calif. (H. Kaufman, c/o Hillis Miller Health Center, Gainesville, Fla.)

22-24. **Photosensitization in Solids**, intern. conf., Chicago, Ill. (L. Grossweiner, Dept. of Physics, Illinois Inst. of Technology, Chicago)

22-24. American Assoc. of **Physical Anthropologists**, 33rd annual, Mexico City, Mexico. (T. D. Stewart, The Association, U.S. Natl. Museum, Washington, D.C.)

22-24. **Polymers**, 2nd biennial symp., American Chemical Soc., Durham, N.C. (H. N. Friedlander, Chemstrand Research Center, Inc., Box 731, Durham)

22-25. **Agricultural Pesticides Technical Soc.**, Fredericton, N.B., Canada. (W. H. Minshall, University Substation P.O., London, Ont., Canada)

22-25. American Soc. of **Pharmacognosy**, annual, Pittsburgh, Pa. (R. Blomster, Univ. of Pittsburgh School of Pharmacy, Pittsburgh 15213)

22-26. American Soc. for **Engineering Education**, Orono, Maine. (W. L. Collins, Univ. of Illinois, Urbana)

22-26. **Nobel Prize Winners**, 14th meeting, Lindau im Bodensee, Germany. (H. F. Kinderlen, Standing Working Committee for the Nobel Prize Winners, Postfach 11, 899 Lindau im Bodensee)

22-26. Association of **Official Seed Analysts**, Rochester, N.Y. (E. W. Sundermeyer, 329 U.S. Court House, Kansas City 6, Mo.)

22-27. **AAAS Pacific Division**, 45th meeting, Vancouver, B.C., Canada. (R. C. Miller, California Acad. of Sciences, San Francisco)

22-27. **International Organization for Pure and Applied Physics**, 2nd general assembly, Paris, France. (J. Tonnelot, Laboratoire de Biologie Physico-Chimique, Orsay, Seine-et-Oise, France)

23. National Assoc. of **Science Writers**, San Francisco, Calif. (M. D. Spencer, Buffalo *Evening News*, Buffalo, N.Y.)

23-25. **Precision Electromagnetic Measurements**, conf., Boulder, Colo. (National Bureau of Standards, Boulder Labs., Boulder)

23-26. American **Home Economics Assoc.**, 55th annual, Detroit, Mich. (AHEA, 1600 20th St., NW, Washington, D.C.)

24-25. **Computers and Data Processing**, 11th annual, symp., Estes Park, Colo. (W. H. Eichelberger, Denver Research Inst., Univ. of Denver, Denver, Colo. 80210)

24-26. **Joint Automatic Control Conf.**, Stanford, Calif. (L. Zadeh, Univ. of California, Berkeley)

24-28. American Assoc. of **Bioanalysts**, annual, Las Vegas, Nev. (W. N. Reich, AAB, P.O. Box 607, Walnut Creek, Calif.)

24-1. **Air Pollution**, European conf., Strasbourg, Austria. (A. Stern, Div. of Air Pollution, U.S. Public Health Service, Washington, D.C. 20201)

25-26. **Fundamental Phenomena in Hypersonic Flow**, intern. symp., Buffalo, N.Y.

(H. S. Tolley, Cornell Aeronautical Laboratory, P.O. Box 235, Buffalo 14221)

25-27. **American Physical Soc.**, Denver, Colo. (R. G. Sachs, Sterling Hall, Univ. of Wisconsin, Madison 53706)

25-28. **Rockets and Space Flight**, 13th symp., Darmstadt, Germany. (A. F. Staats, Hermann-Oberth-Gesellschaft, Fritz-Beindorff-Allee 9, Hanover, Germany)

28-4. **American Library Assoc.**, St. Louis, Mo. (D. H. Clift, 50. E. Huron St., Chicago, Ill.)

29-30. **Vacuum Metallurgy**, conf., New York, N.Y. (M. A. Cocca, General Electric Laboratory, P.O. Box 1088, Schenectady, N.Y.)

29-1. American Soc. of **Heating, Refrigerating, and Air-Conditioning Engineers**, 71st annual, Cleveland, Ohio. (ASHRAE, 345 E. 47 St., New York, N.Y.)

29-1. **Effects of Radiation on the Hereditary Fitness of Mammalian Populations**, symp., Bar Harbor, Maine. (T. H. Roderick, Jackson Laboratory, Bar Harbor)

29-2. American Inst. of **Aeronautics and Astronautics**, 1st annual, Washington, D.C. (AIAA, 500 Fifth Ave., New York, N.Y. 10036)

29-2. American **Dermatological Assoc.**, Honolulu, Hawaii. (W. M. Sams, 303 Ingraham Bldg., Miami 32, Fla.)

30-5. **Society for Social Responsibility in Science**, Fellowship Farm, Pa. (W. C. Davidson, Dept. of Physics, Haverford College, Haverford, Pa.)

### July

1-4. National Soc. of **Professional Engineers**, annual, Asheville, N.C. (K. E. Trombley, NSPE, 2029 K St., NW, Washington, D.C.)

1-4. **British Tuberculosis Assoc.**, St. Andrews, Scotland. (BTA, 59 Portland Place, London, W.1, England)

2-3. **Spectrochemical Analysis**, limits of detection, conf., Exeter, England, Institute of Physics and the Physical Society, 47 Belgrave Sq., London, S.W.1, England)

2-4. **Scandinavian, Dental Congr.**, Helsinki, Finland. (N. Anderson, Bergmansg. 11 D, Helsinki)

2-5. **Northwest Proctologic Soc.**, Banff, Canada. (F. C. Swartzlander, Greyhound Bldg., Calgary, Canada)

2-8. **Nuclear Physics**, intern. congr., Paris, France. (The Congress, B.P. No. 14, Orsay, Seine-et-Oise, France)

5-10. American **Physical Therapy Assoc.**, annual conf., Denver, Colo. (H. J. Hislop, 1790 Broadway, New York, N.Y.)

6-8. **Electron-Beam Processes for Microelectronics**, symp., Malvern, Worcester, England. (Information Officer, Royal Radar Establishment, St. Andrews Rd., Malvern)

6-9. **Learning and Associated Phenomena in Invertebrates**, Cambridge, England. (D. Davenport, Dept. of Biological Sciences, Univ. of California, Santa Barbara)

6-9. **Signal Processing in Radar and Sonar Directional Systems**, Birmingham, England. (British Institution of Radio Engineers, 9 Bedford Sq., London, W.C.1)

6-10. **Magnetic Recording**, intern. conf., London, England. (Secretariat, the Con-

ference, c/o Inst. of Electrical Engineers, Savoy Pl., London, W.C.2)

6-10. Theoretical and Applied **Mathematical Programming**, intern. symp., London, England. (M. Kinnaird, Operational Research Soc., 64 Cannon St., London, E.C.4)

6-10. **Physics of Non-crystalline Solids**, intern congr. Delft, Netherlands, (J. A. Prins, Lab. Technische Natuurkunde T.H. Delft)

6-11. **Magnetohydrodynamic Electrical Power** Production, Paris France. (European Nuclear Energy Agency, 38 Blvd. Suchet, Paris 16<sup>e</sup>)

6-12. **Sanitary Engineering**, 9th inter-American congr., Bogotá, Colombia. (J. A. Jove, Inter-American Assoc. of Sanitary Engineering, Centro Simón Bolívar, Edificio Sur, 6<sup>o</sup> piso, Caracas, Venezuela)

7-10. **American Dental Soc. of Europe**, annual, Brighton, England. (A. E. F. Sturridge, 35 Harley St., London, W.1, England)

7-11. **European Orthodontic Soc.**, 40th congr., Athens, Greece. (H. N. Haralabakis, Akadimias St. 31, Athens 135)

8-10. **Sulfur Allotropes**, Univ. of California, Berkeley. (B. Meyer, Latimer Hall, Univ. of California, Berkeley)

8-11. **International Soc. of Gastroenterology**, 6th intern. congr., Medellín, Colombia. (J. L. A. Roth, 419 S. 19 St., Philadelphia, Pa.)

8-16. **Entomology**, 12th intern. congr., London, England. (P. Freeman, British Museum of Natural History, Cromwell Rd., London, S.W.7)

10-11. **Rocky Mountain Cancer Conf.**, Denver, Colo. (N. P. Isbell, 1809 E. 18 Ave., Denver 80218)

10-15. **Pleistocene Geomorphology**, symp., Exeter, England. (T. H. Elkins, Royal Geographical Soc., Kensington Gore, London, S.W.7)

12-15. **Solid Propulsion**, NASA meeting, Philadelphia, Pa. (W. H. Hunter, Office of Program Development, Washington, D.C. 10025)

12-16. **Gastroenterology**, 9th Pan American congr., Bogotá, Colombia. (C. A. Estape, Soriano 877, Montevideo, Uruguay)

13-15. **Problems of Capillary Permeability in Health and Disease**, Univ. of Michigan 1964 summer symp., Ann Arbor, Mich. (M. M. Dewey, Dept. of Anatomy, Univ. of Michigan, Ann Arbor)

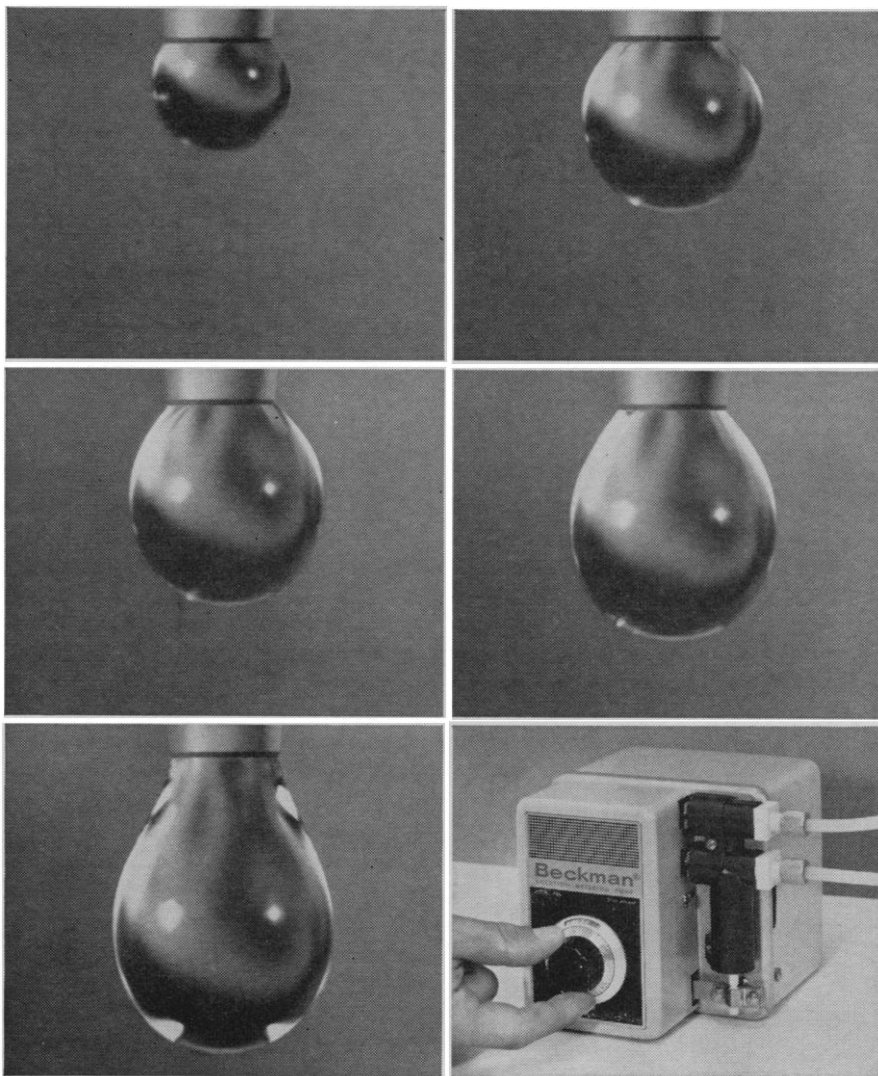
13-15. **Data Processing and Acquisition in Biology and Medicine**, conf., Rochester, N.Y. (K. Enslein, 42 East Ave., Rochester 14604)

13-17. **Canadian Teachers' Federation**, Lac Beauport, P.Q., Canada. (G. Nason, 444 MacLaren St., Ottawa, Ont., Canada)

13-17. **Chemistry of Carbohydrates**, intern. symp., Münster, Germany. (F. Micheel, Organisch-Chemisches Institut, Universität, Hindenburgplatz 55, Münster)

13-17. **International Assoc. for Child Psychiatry and Allied Professions**, London, England. (F. H. Stone, Royal Hospital for Sick Children, 70 University Ave., Glasgow, W.2 Scotland)

13-18. **Instrumental Analytical Chemistry**, 3rd annual symp., Bethlehem, Pa. (A. J. Diefenderfer, Dept. of Chemistry, Lehigh Univ., Bethlehem)



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