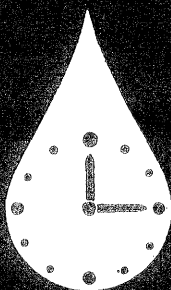
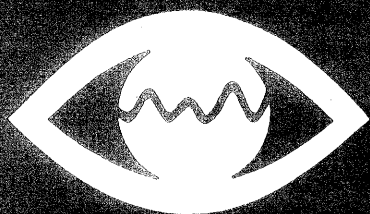


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were similarly prepared. After 4 days, precipitates were found in capillaries containing the fraction from glial cells but not in tubes containing the neuron fraction.

Using fluorescent-antibody technique with frozen cell samples, Hydén found S100 localized in the nuclei of glial cells and in scattered spots of the membrane system. By this means he also found S100 in the nuclei of nerve cells. Because the nucleus amounts to only about 3.5 percent of the mass of this nerve cell, nuclear concentration of S100 did not show up in precipitation analysis.

Does S100 move from glial nuclei to the nuclei of nerve cells? If so, this unidentified protein might be an inducer substance (1).

Acetylcholine Esterase Studied

Some workers have reported that norepinephrine is a transmitter in the reticular formation of the brain stem. Others have reported that acetylcholine is the transmitter in reticular pathways. Most of these reports have come from electrophysiologists; few biochemical studies have been made.

Rudi Pavlin, Ljubljana University, Yugoslavia, told the symposium that he used a new magnetic microdiver technique (2) to study choline esterase activity in single nerve cells and in clumps of glial cells dissected from reticular nuclei of rat. The dissection was made according to the method of Hydén, with whom Pavlin had worked earlier. In most experiments the giant cells from the nucleus reticularis pontis caudalis were used. Certain nerve fibers descending from the cortex and the corpus striatum terminate in this nucleus. The microdiver technique was described at the symposium by one of its inventors, Miro Brzin, also of Ljubljana University (2).

Pavlin said he found evidence of active choline esterase in all cells examined. Enzyme activity of single cells from the same nucleus varied widely, but he found no correlation of activity with either cell volume or cell surface.

Acetylcholine and three higher choline esters are known to occur in rat brain. Selective esterase inhibitors were used to measure, differentially, enzyme activity specific for each choline ester.

In young rats, acetylcholine esterase activity is higher in glial cells than in neurons, Pavlin said. After 80 days of

life, acetylcholine esterase activity had increased by 300 percent in neurons and by only 10 percent in glial cells.

In other experiments Pavlin studied LSD as a possible inhibitor of acetylcholine esterase. While LSD in low concentration inhibited hydrolysis of acetylcholine in homogenates of brain stem tissue, inhibition in single nerve cells was found only at concentrations higher than 20 micromoles per liter. Since concentrations used to produce the LSD effect in humans are much lower, inhibition of acetylcholine esterase in the brain stem can probably be ruled out as the mechanism of LSD effect.

Pavlin said he will develop the microdiver technique to study the action of several enzymes operating simultaneously in a single nerve cell. Further work by this and other techniques, he said, might lead to the "recognition that both cholinergic and adrenergic fibers terminate in the same neuron."

The above is only a sampling of a rich program. The full report of the symposium will be published by the Foundation.

T. L. CAMPBELL

AAAS

References and Notes

1. For a full report of this work, see H. Hydén and B. McEwen, *Proc. Nat. Acad. Sci. U.S.* **55**, 354 (1966).
2. The magnetic microdiver is described in Brzin, Dettbarn, Rosenberg and Nachmansorn, *J. Cell Biology* **26**, 353 (1965).

Forthcoming Events

April

15-16. Iowa Acad. of Science, Pella. (G. W. Peglar, Dept. of Mathematics, Iowa State Univ., Ames)

15-16. Minnesota Acad. of Science, annual mtg., Macalester College, St. Paul. (W. Larson, The Academy, 3100 38th Ave. S., Minneapolis 55406)

15-16. Montana Acad. of Sciences, Missoula. (L. H. Harvey, Univ. of Montana, Missoula 59801)

15-17. American Soc. of Internal Medicine, New York, N.Y. (A. O. Whitehall, 3410 Geary Blvd., San Francisco, Calif.)

16-18. Lateral Line Detectors, intern. conf., New York, N.Y. (P. H. Cahn, Stern College, Yeshiva Univ., 253 Lexington Ave., New York 10016)

17-20. Electron and Ion Beam Science and Technology, 2nd intern. conf., American Inst. of Mining, Metallurgical, and Petroleum Engineers, New York, N.Y. (H. N. Appleton, 345 E. 47 St., New York 10017)

18-19. American Otological Soc., San Juan, P.R. (W. H. Bradley, 1100 E. Genesee St., Syracuse, N.Y.)

18-20. Thermodynamics of Ceramic



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Systems, mtg., London, England. (J. P. Roberts, British Ceramics Soc., Houldsworth School of Applied Science, Univ. of Leeds, Leeds 2, England)

18-20. Technical Microbiology, symp., Berlin, Germany. (S. Windisch, Inst. für Gärungsgewerbe, Seestrasse, 13, 1 Berlin 65)

18-20. Structures and Materials, 7th conf., Cocoa Beach, Fla. (R. W. Leonard, NASA-Langley Research Center, Mail Stop 188C, Langley Station, Hampton, Va.)

18-21. Aerospace Medical Assoc., 37th annual scientific mtg., Las Vegas, Nev. (C. A. Berry, Chief of Center Medical Programs, NASA-Manned Spacecraft Center, Houston, Tex. 77058)

18-21. International Scientific Radio Union, U.S. natl. committee, mtg., Washington, D.C. (USNC-URSI, 2101 Constitution Ave, NW, Washington, D.C.)

18-21. Tectonic Levels in the Earth's Crust, intern. symp., Neuchatel, Switzerland. (J.-P. Schaer, Dept. of Geology, University, 11 rue Emile Argand, 200 Neuchatel)

18-22. American Assoc. of Corrosion Engineers, 22nd annual mtg., Miami Beach, Fla. (N. E. Hamner, The Association, 980 M&M Bldg., Houston, Tex.)

18-22. Applications of Liquid Fuels, conf., Torquay, England. (Inst. of Fuel, 18 Devonshire St., Portland Pl., London, W.1, England)

18-22. American College of Physicians, New York, N.Y. (E. C. Rosenow, Jr., 4200 Pine St., Philadelphia 4, Pa.)

19-22. American Geophysical Union, 47th annual mtg., Washington, D.C. (W. E. Smith, AGU, 1145 19th St., NW, Washington, 20036)

18-23. International Soc. for Photogrammetry, technical commissions, Munich, Germany. (G. Krauss, Deutsche Gesellschaft für Photogrammetrie, Waase-
mstr. 19-21, Bad Godesberg, Germany)

19-21. Frequency Control, 20th annual symp., U.S. Army Electronics Command, Atlantic City, N.J. [Director, Electronics Components Laboratory, U.S. Army Electronics Command, Attn: AMSEL-KT-ST (M. F. Timm), Fort Monmouth, N.J. 07703]

19-22. Microwave Communications, 3rd colloquium, Budapest, Hungary. (Valko Peterne, Szabadsag ter 17, Budapest)

19-23. Scientific and Technical Books and Journals, 2nd intern. exhibition, Paris, France. (F. Retailiau, Intern. Exhibition of Scientific and Technical Books and Journals, 117 Blvd. St. Germain, Paris 6)

20-22. Institute of Electrical and Electronics Engineers, southwestern conf., Dallas, Tex. (R. Carrel, Collins Radio Co., Dallas 75207)

20-22. American Laryngological, Rhinological, and Otological Assoc., San Juan, P.R. (V. R. Alfaro, 917 20th St., NW, Washington, D.C. 20006)

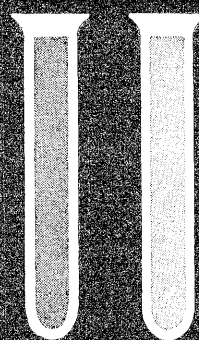
20-22. Magnetism, 4th intern. conf. (INTERMAG), Stuttgart, Germany. (E. W. Pugh, I.B.M. Corp., 1000 Westchester Ave., White Plains, N.Y.)

20-23. Application of Physicochemical Methods in Chemical Analysis, conf., Budapest, Hungary. (M. K. Egyesülete, Szabadsag ter 17, Budapest 5)

20-23. Solar Energy Soc., 2nd annual mtg., Boston, Mass. (F. Edlin, Solar En-

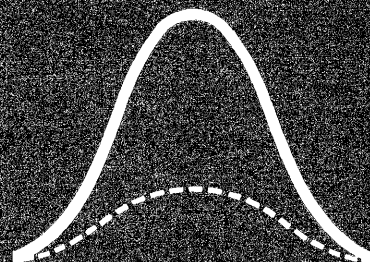
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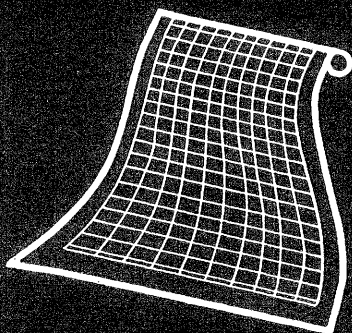


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ergy Soc., Arizona State Univ., Tempe 85281)

21-22. **Space Navigation**, natl. mtg., Boston, Mass. (E. S. Keats, Westinghouse Electric Corp., Box 1897, Baltimore, Md. 21203)

21-23. **Ohio Acad. of Science**, 75th annual mtg., Columbus. (J. H. Melvin, 505 King Ave., Columbus 43201)

21-23. **Southwestern Psychological Assoc.**, 13th annual conv., Arlington, Tex. (C. Cleland, 2104 Meadowbrook Dr., Austin, Tex.)

21-23. **West Virginia Acad. of Science**, Institute. (J. B. Hickman, West Virginia Univ., Morgantown 26506)

22. **Computer Aided Basic Research**, symp., Hoboken, N.J. (I. Flores, Electrical Engineering Dept., Stevens Inst., Hoboken 07030)

22. **Illinois Acad. of Science**, Illinois State Univ., Normal. (N. D. Levine, Univ. of Illinois, Urbana)

22-23. **National Council of Teachers of Mathematics**, Greeley, Colo. (J. D. Gates, 1201 16th St., NW, Washington, D.C. 20036)

23-24. **American Laryngological Assoc.**, San Juan, P.R. (L. Richards, 12 Clovelly Rd., Wellesley Hills, Mass.)

24. **Society for Clinical Ecology**, 1st annual mtg., Chicago, Ill. (T. G. Randolph, Human Ecology Research Foundation, 720 N. Michigan Ave., Chicago 11, Ill.)

24-26. **American Assoc. of Colleges of Pharmacy**, Dallas, Tex. (C. W. Bliven, 1507 M St., NW, Washington, D.C. 20005)

24-27. **American Soc. of Abdominal Surgeons**, Chicago, Ill. (B. F. Alfano, 663 Main St., Melrose 76, Mass.)

24-27. **American Oil Chemists' Soc.**, Los Angeles, Calif. (C. H. Hauber, The Society, 35 E. Wacker Dr., Chicago, Ill. 60601)

24-28. **Infectious Pathology**, 4th intern. congr., Stuttgart, Germany. (G. Hoffman, Hugstetterstr. 55, 78 Friburg im Briesgau, Germany)

24-29. **American College of Allergists**, 22nd annual congr., Chicago, Ill. (J. D. Gillespie, 2141 14th St., Boulder, Colo. 80302)

24-29. **American Soc. of Hospital Pharmacists**, annual mtg., Dallas, Tex. (J. A. Oddis, 2215 Constitution Ave., NW, Washington, D.C. 20037)

24-29. **American Pharmaceutical Assoc.**, Dallas, Tex. (W. S. Apple, 2215 Constitution Ave., NW, Washington, D.C. 20037)

25-27. **Antidepressant Drugs**, symp., Milan, Italy. (S. Garattini, Inst. di Ricerche Farmacologiche "Mario Negri," Via Eritrea, 62, Milan)

25-27. **National Acad. of Sciences**, 103rd annual mtg., Washington, D.C. (Home Secretary, NAS, 2101 Constitution Ave., NW, Washington, D.C. 20418)

25-27. **American Acad. of Pediatrics**, Montreal, P.Q., Canada. (E. H. Christopher, 1801 Hinman Ave., Evanston, Ill. 60204)

25-27. **Academy of Religion and Mental Health**, annual mtg., Chicago, Ill. (G. C. Anderson, 16 E. 34 St., New York, N.Y.)

25-28. **Society of Economic Paleontologists and Mineralogists**, St. Louis, Mo. (R. Tener, The Society, Box 979, Tulsa, Okla.)

25-28. **American Assoc. of Petroleum Geologists**, St. Louis, Mo. (N. C. Smith, Box 979, Tulsa, Okla.)

25-28. **Improving Effectiveness in Research and Development Administration**, 11th annual inst., American Univ., Washington, D.C. (P. W. Howerton, Center for Technology and Administration, American Univ., 2000 G St., NW, Washington, D.C. 20006)

25-29. **Radioecological Concentration Processes**, intern. symp., Stockholm, Sweden. (Inst. of Radiophysics, Stockholm 60)

25-30. **American Acad. of Neurology**, Philadelphia, Pa. (T. D. Swedien, 7100 France Ave., Minneapolis, Minn.)

25-7. **Psychotherapy**, 16th Lindauer week, Lindauer, Germany. (H. Stolze, Adalbert-Stifterstr. 31, 8 München 27, Germany)

26. **National Cystic Fibrosis Research Foundation**, Atlantic City, N.J. (The Foundation, Medical Dept., 521 Fifth Ave., New York, N.Y. 10017)

26-27. **Electromagnetic Relays**, 14th annual natl. conf., Oklahoma State Univ., Stillwater. (D. D. Lingelbach, Dept. of Electrical Engineering, Oklahoma State Univ., Stillwater 74075)

26-28. **Joint Computer Conf.**, Boston, Mass. (J. L. Mitchell, P.O. Box 460, Lexington, Mass. 02173)

26-28. **Institute of Electrical and Electronics Engineers**, region 6, annual conf., Tucson, Ariz. (L. P. Huelsman, Dept. of Electrical Engineering, Univ. of Arizona, Tucson 85721)

26-28. **National Acad. of Engineering**, 2nd annual mtg., Washington, D.C. (Secretary, NAE, 2101 Constitution Ave., NW, Washington, D.C. 20418)

27-29. **Institute of Mathematical Statistics**, Upton, L.I., N.Y. (G. E. Nicholson, Jr., Univ. of North Carolina, Chapel Hill)

27-29. **American Pediatric Soc.**, Atlantic City, N.J. (C. D. Cook, 333 Cedar St., New Haven, Conn. 06510)

27-1. **Technical Union of Italian Pharmacists**, 9th natl. congr., Naples, Italy. (UTI. Far. Secretariat, Via Balbi 29/4, Genoa)

28-1. **Southwestern Assoc. of Naturalists**, 13th annual mtg., Texas College of Arts and Industries, Kingsville. (J. T. Peacock, Dept. of Biology, Texas College of Arts and Industries, Kingsville, 78363)

28-29. **Electrical Conduction Properties of Polymers**, symp., Pasadena, Calif. (A. Rembaum, Jet Propulsion Laboratory, California Inst. of Technology, 4800 Oak Grove Dr., Pasadena)

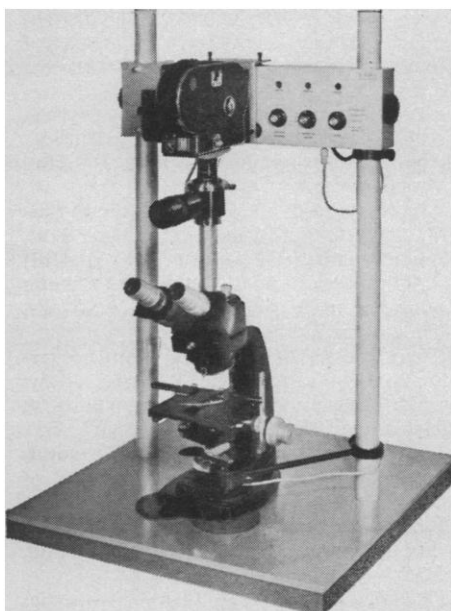
28-30. **Central States Anthropological Soc.**, annual mtg., St. Louis, Mo. (G. H. Fathauer, Dept. of Sociology and Anthropology, Miami Univ., Oxford, Ohio 45056)

28-30. **Economic and Social Aspects of Technological Transfer**, conf., Airlie House, Warrenton, Va. (D. L. Spencer, Dept. of Economics, Howard Univ., Washington, D.C. 20001)

28-30. **Wildflower Pilgrimage**, 16th annual, Gatlinburg, Tenn., and Great Smoky Mountain Natl. Park. (A. J. Sharp, Dept. of Botany, Univ. of Tennessee, Knoxville)

29-30. **Georgia Acad. of Science**, Georgia Southern College, Statesboro. (J. T. May, School of Forestry, Univ. of Georgia, Athens)

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29-30. Mississippi Acad. of Sciences, Mississippi State Univ., State College. (C. Q. Sheeley, Box 574, State College 39762)

29-30. Population Assoc. of America, New York, N.Y. (A. S. Lunde, Natl. Center for Health Statistics, U.S. Public Health Service, Washington, D.C. 20201)

29-30. American Assoc. of University Professors, Atlanta, Ga. (W. P. Fidler, The Association, 1785 Massachusetts Ave., NW, Washington, D.C.)

29-1. Association of Clinical Scientists, Chicago, Ill. (R. P. MacFate, 300 N. State St., Chicago, Ill. 60610)

29-1. American Soc. for the Study of Sterility, Chicago, Ill. (H. H. Thomas, 944 S. 18 St., Birmingham, Ala.)

May

1. American Federation for Clinical Research, Atlantic City, N.J. (J. F. Bryan, 2000 P St., NW, Washington, D.C. 20036)

1-4. AAAS, Southwestern and Rocky Mountain Div., Las Cruces, N.M. (M. G. Anderson, P.O. Box AF, University Park, N.M. 88070)

1-4. American Soc. for Clinical Investigation, Atlantic City, N.J. (G. W. Liddle, School of Medicine, Vanderbilt Univ., Nashville, Tenn.)

1-4. American College of Obstetricians and Gynecologists, Chicago, Ill. (R. A. Kimbrough, 79 W. Monroe, Chicago 60603)

1-5. American Soc. for Microbiology, annual mtg., Los Angeles, Calif. (R. W. Sarber, The Society, 115 Huron View Blvd., Ann Arbor, Mich. 48103)

1-6. Electrochemical Soc., annual spring mtg., Cleveland, Ohio. (The Society, 30 E. 42 St., New York 10017)

1-6. International College of Surgeons, North American Federation, congr., Houston, Tex. (S. E. Henwood, 1516 Lake Shore Dr., Chicago, Ill. 60610)

2-3. Canadian Aeronautics and Space Inst., annual mtg., Ottawa, Ontario. (The Institute, 77 Metcalfe St., Ottawa 4)

2-3. Bioengineering, 3rd annual Rocky Mountain symp., University of Colorado, Boulder. (J. C. Daniel, Dept. of Biology, Univ. of Colorado, Boulder 80304)

2-3. American Inst. of Mining, Metallurgical, and Petroleum Engineers, Inst. of Petroleum Engineers, Wichita Falls, Tex. (Executive Secretary, 345 E. 47 St., New York 10017)

2-4. Council of Biology Editors, Univ. of Notre Dame, Notre Dame, Ind. (R. E. Gordon, Dept. of Biology, Univ. of Notre Dame, Notre Dame)

2-4. Communications Satellite Systems, conf., American Inst. of Aeronautics and Astronautics, Washington, D.C. (W. J. Brunke, AIAA, 1290 Sixth Ave., New York 10019)

2-5. Isochronous Cyclotrons, intern. conf., Gatlinburg, Tenn. (R. S. Livingston, Oak Ridge Natl. Laboratory, P.O. Box X, Oak Ridge, Tenn. 27831)

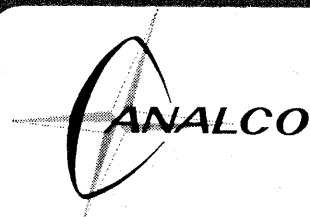
2-7. International Inst. of Optics, conf., Paris, France. (Conference Secretariat, Inst. for Optics, 3, blvd. Pasteur, Paris 15)

3-5. British Joint Computer Conf., Eastbourne, England. (Secretariat, Inst. of Electrical Engineers, Savoy Place, London W.C.2, England)

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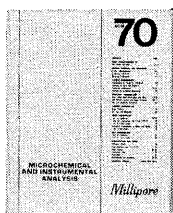
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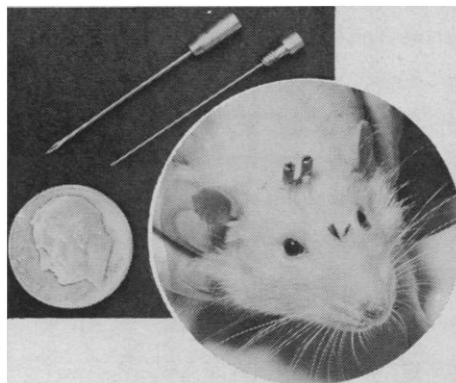
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3-5. **Industrial Waste**, 21st conf., Purdue Univ., Lafayette, Ind. (D. E. Bloodgood, School of Civil Engineering, Purdue Univ., Lafayette 47907)

3-6. American Chemical Soc., Div. of **Rubber Chemistry**, San Francisco, Calif. (G. N. Vacca, Bell Telephone Laboratories, Murray Hill, N.J.)

3-8. Mechanism of Action of **Fungicides and Antibiotics**, intern. symp., Biological Soc. of the GDR, Reinhardtbrunn, East Germany. (H. Lyr, Inst. für Forstwissenschaften, Alfred-Möllerstr., 13 Eberswalde die Berlin)

4. Society for **Analytical Chemistry**, mtg., Bristol, England. (The Society, 14 Belgrave Sq., London, England)

4-6. **Genetics** Soc. of Canada, 11th annual mtg., Banff, Alberta. (C. O. Person, Dept. of Genetics, Univ. of Alberta, Edmonton, Canada)

4-6. Society for Experimental **Stress Analysis**, spring mtg., Detroit, Mich. (B. E. Rossi, 21 Bridge Sq., Westport, Conn. 06882)

4-7. **Virginia Acad. of Science**, Madison College, Harrisonburg. (R. C. Berry, Virginia Acad. of Science, P.O. Box 8203, Richmond 23226)

4-8. **Laboratory Medicine**, 12th congr., Bad Kissengen, West Germany. (W. Altbath, Katharinengasse 3, 87 Würzburg, Germany)

4-11. **Instability Phenomena in Galaxies**, symp., Armenian SSR. (A. N. Hakopian, Acad. of Sciences of the Armenian SSR, Erevan)

5-6. **Human Factors in Electronics**, 7th symp., Minneapolis, Minn. (C. A. Baker, Honeywell, Inc., 2700 Ridgeway Rd., Minneapolis)

5-6. **Rabies**, natl. symp., Atlanta, Ga. (J. R. Ray, American Veterinary Medical Assoc., Chicago, Ill.)

5-6. **Strontium Metabolism**, intern. symp., Annan, Scotland. (J. H. Martin, United Kingdom Atomic Energy Agency, Chapelcross Works, Annan, Dumfriesshire, Scotland)

5-7. Society for American **Archaeology**, 31st annual mtg., Univ. of Nevada, Reno. (D. D. Fowler, Dept. of Anthropology, Univ. of Nevada, Reno 89507)

5-7. New Jersey Soc. of **Professional Engineers**, 42nd annual conf. and exhibition, Atlantic City. (K. G. Stanley, The Society, 495 West State St., Trenton 08618)

5-7. **Midwestern Psychological Assoc.**, Chicago, Ill. (F. A. Mote, Psychology Dept., Univ. of Wisconsin, Madison)

5-8. **Protides of the Biological Fluids**, 14th annual colloquium, Bruges, Belgium. (P.O. Box 71, Bruges)

6-7. Institute on **Lake Superior Geology/Mineralogical Soc. of America/Soc. of Economic Geologists**, mtg., Michigan Technological Univ., Saulte Ste. Marie. (A. K. Snelgrove, Michigan Technological Univ., Houghton 49931)

6-7. **North Carolina Acad. of Science**, Catawba College, Salisbury. (J. A. Yarbrough, Meredith College, Raleigh, N.C.)

6-7. **North Dakota Acad. of Science**, North Dakota State Univ., Fargo. (B. G. Gustafson, Univ. of North Dakota, Grand Forks)

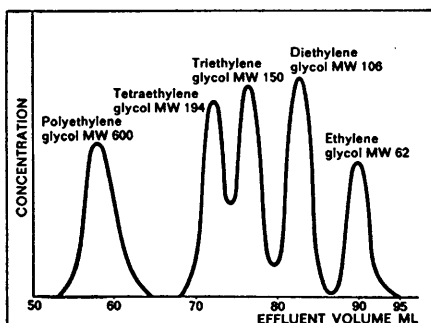
6-8. Society for Applied **Anthropology**, 25th annual mtg., Milwaukee, Wis. (The

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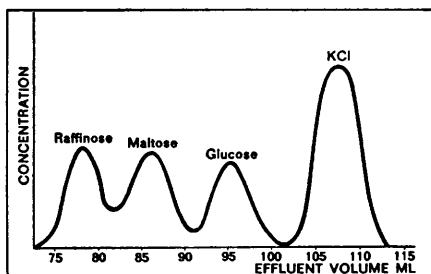
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Society, Rand Hall, Cornell Univ., Ithaca, N.Y.)

6-8. **Wisconsin Acad. of Sciences, Arts, and Letters**, Lawrence Univ., Appleton, Wis. (D. J. Behling, 720 Wisconsin Ave., Milwaukee 53202)

6-9. **American Psychoanalytic Assoc.**, Atlantic City, N.J. (H. Fischer, 1 E. 57th St., New York, N.Y.)

7-8. **Academy of Psychoanalysis**, Atlantic City, N.J. (A. H. Rifkin, 125 E. 65 St., New York 10021)

7-12. **American Ceramic Soc.**, 68th annual mtg., Washington, D.C. (The Society, 4055 N. High St., Columbus, Ohio 43214)

8-10. **Society of the Plastics Industry**, Canadian section, 24th annual mtg., Montreal, P.Q. (The Society, 250 Park Ave., New York 10017)

8-11. **Administrative Management Soc.**, 47th intern. conf., Boston, Mass. (W. H. Latham, Willow Grove, Pa. 19090)

8-12. **Association of American State Geologists**, annual mtg., Univ. of Indiana, Bloomington. (W. C. Hayes, Missouri Geological Survey, P.O. Box 250, Rolla 65401)

8-12. **Organic Sulphur Compounds**, symp., Univ. of Groningen, Groningen, Netherlands. (M. J. Janssen, Dept. of Organic Chemistry, Univ. of Groningen, Groningen)

8-15. **Stereochemistry**, conf., Bürgenstock, Switzerland. (D. Arigoni, Dept. of Organic Chemistry, Univ. of Zurich, Zurich, Switzerland)

9-10. **Circuit Theory**, 9th midwestern symp., Oklahoma State Univ., Stillwater. (D. R. Wilson, School of Electrical Engineering, Oklahoma State Univ., Stillwater 74045)

9-11. **Nuclear Applications of Non-Fissile Ceramics**, conf., Washington, D.C. (A. Boltax, Westinghouse Astronuclear Laboratory, P.O. Box 10864, Pittsburgh, Pa. 15236)

9-11. **Numerical Solution of Nonlinear Differential Equations**, symp., Madison, Wis. (D. Greenspan, Mathematics Research Center, U.S. Army, Univ. of Wisconsin, Madison 53706)

9-12. **Cell Nucleus Functions and Radio-Sensitivity**, symp., Rijswijk, Netherlands. (H. M. Klouwen, Radiobiological Inst., Organization for Health Research, T.N.O., 151 Lang Kleigweg, Rijswijk)

9-12. **Standards Laboratory conf.**, Natl. Bureau of Standards, Gaithersburg, Md. (W. R. Tilley, NBS, Washington, D.C. 20234)

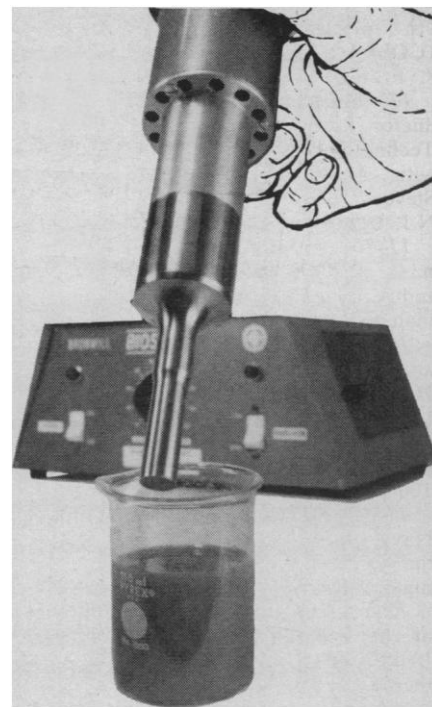
9-13. **Society of Photographic Scientists and Engineers**, annual conf., San Francisco, Calif. (J. B. Bell, 1525 Tennessee St., San Francisco, Calif.)

9-13. **American Psychiatric Assoc.**, annual mtg., Atlantic City, N.J. (P. Woodward, 1700 18th St., NW, Washington, D.C. 20009)

9-14. **Condensation Nuclei**, 6th intern. symp., Albany, N.Y. (D. G. Barry, Atmospheric Sciences Research Center, State Univ. of New York, P.O. Box 7185, Albany 12224)

10-12. **Telemetering**, natl. conf., Boston, Mass. (F. Nieman, NASA Electronics Research Center, 575 Technology Sq., Cambridge, Mass. 02139)

10-14. **American Assoc. of Mental Deficiency**, Chicago, Ill. (G. E. Milligan, 1601 Broad St., Columbus, Ohio)



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10-19. Committee on **Space Research**, 9th plenary mtg., Vienna, Austria. (COSPAR, 55, blvd. Malesherbes, Paris 8, France)

11. **Electroluminescence and Semiconductor Lasers**, seminar, Stevens Inst. of Technology, Hoboken, N.J. (G. J. Herskowitz, Dept. of Electrical Engineering, Stevens Inst. of Technology, Hoboken, N.J. 07030)

11-13. **Analysis Instrumentation**, 12th natl. symp., Houston, Tex. (G. I. Doering, Industrial Nucleonics Corp., 650 Ackerman Rd., Columbus, Ohio 43202)

11-13. American Inst. of **Chemists**, 43rd annual mtg., New Orleans, La. (C. L. Hoffpauir, Southern Regional Research Laboratory, New Orleans 70119)

11-13. **Industrial Research Inst.**, spring mtg., Buck Hill Falls, Pa. (The Institute, 100 Park Ave., New York 10017)

11-13. **Military Oceanography**, 3rd U.S. Navy symp., San Diego, Calif. (Office of the Oceanographer of the Navy, Washington, D.C.)

11-14. American Assoc. for the **History of Medicine**, Rochester, Minn. (J. B. Blake, Natl. Library of Medicine, Bethesda, Md.)

11-14. Society for **Industrial and Applied Mathematics**, natl. mtg., Univ. of Iowa, Iowa City. (J. B. Rosser, Mathematics Research Center, Univ. of Wisconsin, Madison)

11-14. **Plant Disease Epidemics**, Analysis and Implications, workshop, Pennsylvania State Univ., University Park. (P. J. Wuest, Dept. of Plant Pathology, Pennsylvania State Univ., University Park 16802)

11-14. Society of **Technical Writers and Publishers**, 13th annual mtg., Fort Worth, Tex. (N. J. Kennedy, Box 3706, Columbus, Ohio 43214)

11-21. **Photographic Systems** for Engineers, seminar, San Francisco, Calif. (J. B. Bell, 1525 Tennessee St., San Francisco)

12-13. **Information Retrieval**, 3rd natl. colloquium, Univ. of Pennsylvania, Philadelphia. (A. W. Speakman, E. I. duPont de Nemours & Co., Wilmington, Del. 19898)

12-14. **Diabetology**, 7th annual mtg., Paris, France. (M. Rathery, Hotel-Dieu, 1, pl. du Parvis-Notre Dame, Paris 4)

12-14. Czechoslovak Soc. of **Urology**, congr., Brno. (M. Jerabek, Clinique Urologique, 53, Pekarska, Brno)

13. **Desert Environment**, mtg., Fullerton Junior College, Fullerton, Calif. (M. D. Brown, Div. of Life Sciences, Fullerton Junior College, Fullerton)

14. **Reliability**, 7th annual West Coast symp., Univ. of Southern California, Los Angeles. (R. J. Guarino, TRW Systems, One Space Park, Redondo Beach, Calif.)

15-18. American Inst. of **Chemical Engineers**, 59th annual mtg., Columbus, Ohio. (The Institute, 345 E. 47 St., New York 10017)

15-18. **Kinetics and Catalysis**, intern. symp., Columbus, Ohio. (P. B. Weisz, Socony Mobil Research and Development Labs., Paulsboro, N.J. 08066)

15-19. **Radiation Chemistry**, 2nd symp., Tihany, Hungary. (A. Somogyi, Research Inst. for the Plastics Industry, Hungaria krt. 114, Budapest 14, Hungary)

15-21. Dynamic Role of **Molecular**

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Constituents in Plant-Parasite Interaction, U.S.—Japan seminar, Gamagori, Japan. (C. J. Mirocha, Dept. of Plant Pathology and Physiology, Univ. of Minnesota, St. Paul)

16-17. **Plant Growth**, conf., New York, N.Y. (J. F. Frederick, Dodge Chemical Co., Research Labs., 3425 Boston Rd., Bronx, N.Y. 10469)

16-18. **Aerospace Electronics**, 18th natl. conf., Dayton, Ohio. (J. M. Mayer, 4525 Fernbrook St., Kettering, Ohio 45440)

16-18. Society of German **Engineers**, conf., Berlin. (The Society, Postfach 10 250, 4 Düsseldorf 10, Germany)

16-18. Institute of Electrical and Electronics Engineers, Group on **Microwave Theory and Technique**, symp., Palo Alto, Calif. (L. Young, Stanford Research Inst., Menlo Park, Calif. 94025)

16-18. **Power Instrumentation**, 9th natl. symp., Detroit, Mich. (R. C. Austin, Detroit Edison Co., 2000 Second Ave., Detroit 48226)

16-18. American Assoc. for **Thoracic Surgery**, Vancouver, B.C., Canada. (A. Henvey, 311 Carondelet Bldg., 7730 Carondelet Ave., St. Louis, Mo.)

16-19. **Biomedical Sciences Instrumentation**, 4th natl. symp., Anaheim, Calif. (T. B. Weber, Beckman Instruments, Inc., 2500 Harbor Blvd., Fullerton, Calif.)

16-20. American Soc. of **Civil Engineers**, Denver, Colo. (W. H. Wisley, 345 E. 47 St., New York, N.Y. 10017)

16-20. **Disposal of Radioactive Wastes** into the Seas, Oceans, and Surface Waters, symp., Intern. Atomic Energy Agency, Vienna, Austria. (IAEA, 11 Kärntnerring, Vienna 1)

16-20. American **Industrial Hygiene** Assoc., Pittsburgh, Pa. (A. D. Hosey, 1014 Broadway, Cincinnati, Ohio 45202)

16-20. **Water Resources Engineering**, conf., American Soc. of Civil Engineers, Denver, Colo. (W. H. Wisley, The Society, 345 E. 47 St., New York 10017)

17-19. **Fast Breeder Reactors**, intern. conf., London, England. (H. C. Dunn, British Nuclear Energy Soc., Risley, Warrington, Lancashire, England)

18-20. **Operations Research** Soc. of America, 29th natl. mtg., Santa Monica, Calif. (J. E. Walsh, System Development Corp., 2500 Colorado Ave., Santa Monica 90406)

18-25. **Warm-Water Pond Fish Culture**, world symp., U.N. Food and Agriculture Organization, Rome, Italy. (T. V. R. Pillay, FAO, Via delle Terme di Caracalla, Rome)

19-20. **Membrane Processes** for Industry, symp., Southern Research Inst., Birmingham, Ala. (J. H. Strickland, SRI, 2000 Ninth Ave. S., Birmingham 35205)

19-21. **Organellogenesis**, regional conf., Soc. for Developmental Biology, Ames, Iowa. (J. M. Arnold, Dept. of Biochemistry and Biophysics, Iowa State Univ., Ames 50010)

19-22. **Exfoliative Cytology**, intern. congr., Rio de Janeiro, Brazil. (E. von Haam, Ohio State Univ., Columbus)

19-22. German Bunsen Soc. for **Physical Chemistry**, 65th general assembly, Freudenstadt. (The Society, Varrentrappstr. 40-42, 6 Frankfurt am Main, West Germany)

20-21. **Surface Physics**, 4th symp.,

Washington State Univ., Pullman. (E. E. Donaldson, Dept. of Physics, Washington State Univ., Pullman 99163)

20-22. Royal **Astronomical** Soc. of Canada, general assembly, Univ. of Manitoba, Winnipeg. (R. J. Lockhart, Dept. of Mathematics, Univ. of Manitoba, Winnipeg)

20-22. Society for **Experimental Medicine** of the German Democratic Republic, 3rd general conf., Leipzig, East Germany. (Secretariat, The Society, Friedrichstr. 129, Block F, 104 Berlin, East Germany)

21. **Southern Calif. Acad.** of Sciences, annual mtg., California State College, San Diego. (C. Rozaire, The Academy, Los Angeles Museum, Exposition Park, Los Angeles, Calif.)

22-26. Institute of **Food Technologists**, 26th annual mtg., Portland, Ore. (C. L. Willey, 176 W. Adams St., Chicago, Ill. 60603)

22-26. American **Orthopedic** Assoc., Colorado Springs, Colo. (S. W. Banks, 29 E. Madison St., Chicago, Ill.)

23-24. **High Temperature Reactors** and the Dragon Project, symp., London, England. (Secretary, British Nuclear Energy Soc., Inst. of Civil Engineers, 1-7 Great George St., London S.W.1)

23-25. American **Astronautical** Soc., 12th annual mtg., Los Angeles and Anaheim, Calif. (L. Larmore, Douglas Aircraft, 3000 Ocean Park Blvd., Santa Monica, Calif.)

23-25. **Chemical and Petroleum Instrumentation**, 7th natl. symp., San Francisco, Calif. (J. T. Ward, E. I. duPont de Nemours & Co., Wilmington, Del. 19898)

23-25. Dynamics of **Chemical Reactions**, intern. symp., Padua, Italy. (Direzione Istituto di Impianti Chimici, Univ. degli Studi, Padua)

23-26. Association for Research into **Periodontal Disease**, 18th mtg., West Berlin, Germany. (M. J. Matthey, 2 rue Bartholini, Geneva, Switzerland)

23-26. **Spaceflight**, 6th European symp., Brighton, England. (British Interplanetary Soc., 12 Bessborough Gardens, S.W., London, S.W.1, England)

23-28. International Assoc. for the Study of the **Bronchi**, 16th congr., Athens, Greece. (The Association, 189 Blvd. St.-Germain, Paris 7, France)

23-28. **Hormonal Steroids**, intern. congr., Milan, Italy. (L. Martini, Inst. di Farmacologia, Via Andrea del Sarto 21, Milan)

24-26. **Solid Propulsion**, conf., Chicago, Ill. (Chemical Propulsion Information Agency, 8621 Georgia Ave., Silver Spring, Md.)

24-26. **Ultrasonic Testing** of Materials, 2nd intern. symp., Berlin, Germany. (Kammer der Technik FV "Maschinenbau," Clara-Zetkinstr. 115-117, 108 Berlin)

25. American Soc. for **Gastrointestinal Endoscopy**, Chicago, Ill. (B. H. Sullivan, Jr., 2020 E. 93 St., Cleveland, Ohio 44106)

25-27. Society of **Radiographers**, 20th annual conf., Brighton, England. (The Society, 32 Welbeck St., London, W.1, England)

25-27. **Sulfamic Acid** and Its Electrometallurgical Applications, symp., Milan, Italy. (R. Piontelli, Laboratorio di Elettrochimica, Clinica-Fisica e Metallurgia del Politecnico di Milano, 32 Piazza Leonardo da Vinci, Milan)