

Why companies standardize on WANG electronic calculators

VERSATILITY Just one basic calculator design, the WANG 300 Series, can solve the needs of many company operations. On compact keyboard displays, all basic arithmetic functions $(+, -, \times, \div)$ can be performed instantly, silently, accurately by simply touching a key. Optional keys produce x^2, \sqrt{x} , $Log_e x$, e^x . 80 Step tab cards and plug-in card readers can make any model fully programmable.

EXPANDABILITY As needs increase, add-on compatibility makes it possible to expand into a powerful computing system that will branch, loop, do subroutines, make decisions and manipulate arrays.

CONVENIENCE Wang calculators are as simple to learn and operate as a tenkey adding machine but infinitely faster and more powerful.

ECONOMY Wang multiple keyboard systems cost far less per station than any comparable electronic calculators. In use, they can eliminate 67 to 93 per cent of calculation time. (One leading company reports a saving of \$73,000 four months after installing Wang Electronic Calculators.)

Why not investigate? Write or call:



Dept. 2-Q, 836 North St., Tewksbury, Mass. 01876 Tel.: (617) 851-7311

infected after feeding on the lizards (Ač). Zhmayeva reported that three species of Ixodidae ticks could be simultaneously infected with *C. burnetii* and tick-borne encephalitis virus after feeding. Both agents were transferred transstadially and transovarially.

Marked antigenic heterogeneity was found among various strains of the etiologic agent of bovine tick-borne fever, recovered in the same and in different geographic regions of Finland (Tuomi). A new group of rickettsialike agents recovered from laboratory guinea pigs was described by Bozeman.

The review papers presented at this meeting will be published in Zentral-blatt für Bakteriologie (Referate); those dealing with ecological and epidemiological problems in Journal of Hygiene, Epidemiology and Microbiology (Prague); and the others in Acta Virologica. The success of a symposium of this nature can be judged by the breadth of the interests which it spanned and stimulated, from problems directly related to human welfare to basic aspects of rickettsiae as distinctive biological entities.

EMILIO WEISS

Naval Medical Research Institute, Bethesda, Maryland 20014

BENNETT L. ELISBERG F. MARILYN BOZEMAN

Walter Reed Army Institute of Research, Washington, D.C. 20012

RICHARD A. ORMSBEE CORNELIUS B. PHILIP

National Institute of Allergy and Infectious Diseases,

Hamilton, Montana 59840

CHARLES L. WISSEMAN, JR.
PAUL FISET

University of Maryland, Baltimore 21201

DAVID PARETSKY CORA M. DOWNS

University of Kansas, Lawrence 66044
WILLIAM J. VINSON

Harvard School of Public Health, Boston, Massachusetts 02115

Calendar of Events

National Meetings

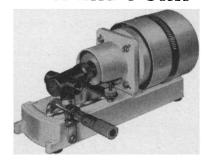
February

11-12. Congress on Medical Education, 64th annual, Chicago, Ill. (C. H. William Ruhe, AMA Council on Medical Education, 535 N. Dearborn, Chicago 60610) 12-14. Aircraft Design for 1980, Washington, D.C. (Meetings Manager, 1290)

Sixth Ave., New York 10019)

Professional Equipment Magnifies Professional Skills

THE FMI LAB PUMP



VALVELESS — No valves to clog

VARIABLE FLOW — 0 to 100% in either direction

VERSATILE — Meters upstream or downstream

REVERSIBLE — Even while operating

CORROSION RESISTANT - 316 ss liquid end

PRECISE — Micrometer controlled

DISCRETE — Down to 0.01 ml/min.

POWERFUL — To 100 psig, 1.8 liters/min

SPARKPROOF —
Enclosed, shaded pole motor

INEXPENSIVE — Any model less than \$200

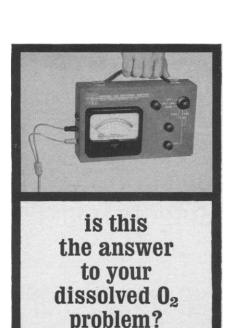
For accurate metering of laboratory quantities of "difficult fluids" in "unusual fluid circuit" applications.

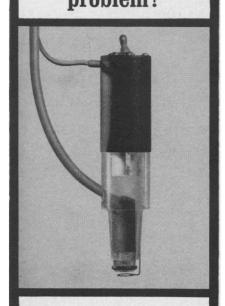
For complete information write:



48 Summit St., Oyster Bay, New York 11771 (516) 922-6050

"If you don't have at least one, you've probably already paid for several thru lost time, inaccuracy or limited lab scope."





The new YSI Model 54 answers the need for a quickly calibrated, temperature compensated instrument with recorder output for accurate single measurements or shortterm monitoring of dissolved oxygen. It reads and records directly in ppm. The extremely compact Model 54 is ideal for both lab use and field sampling of sewage plants, lakes, rivers, etc. to 50 feet (100 feet on special order). A unique, selfagitating motorized accessory probe permits BOD bottle readings in less than a minute without a stirrer. Instrument and probe under \$500.00. Write for bulletin.

> YELLOW SPRINGS INSTRUMENT CO. YELLOW SPRINGS, OHIO 45387

13-15. Aerospace and Electronic Systems, Los Angeles, Calif. (R. M. Emberson, 345 E. 47 St., New York 10017)

13-15. Military Aircraft Systems, Washington, D.C. (Meetings Manager, 1290 Sixth Ave., New York 10019)

13-16. American Public Power Assoc., Sacramento, Calif. (A. Radin, General Manager, Suite 830, 919 18th St., NW, Washington, D.C. 20006)

14-16. Offshore Exploration Conf., New Orleans, La. (M. F. Oberacker, Manager, Administration, OECON, P.O. Box 88, Palos Verdes Estates, Calif.)

15. Commercial Application of Ultra-

15. Commercial Application of Ultrasonics, New York, N.Y. (J. N. Antonevich, Blackstone Corp., 1111 Allen St., Jamestown, N.Y. 14701)

16-17. American Psychopathological Assoc., Neurobiological Aspects of Psychopathology, New York, N.Y. (J. Zubin, 722 W. 168 St., New York 10032)

16. Reliability Symp., 9th annual West Coast, Beverly Hills, Calif. (R. J. Green, TRW Systems, Building E2/6043, One Space Park, Redondo Beach, Calif. 90278)

16-18. Repair and Regeneration, symp., San Francisco, Calif. (Continuing Education in Health Sciences, Univ. of California, San Francisco Medical Center, Parnassus and Third Ave., San Francisco)

18-21. American Inst. of Chemical Engineers, 63rd natl. mtg., St. Louis, Mo. (L. L. Fellinger, Monsanto Co., 800 N. Lindbergh, St. Louis)

18-22. Society of Economic Geologists, New York, N.Y. (R. A. Laurence, P.O. Box 1549, Knoxville, Tenn. 37901)

Box 1549, Knoxville, Tenn. 37901)

18-22. Technical Assoc. of the Pulp and
Paper Industry, 53rd annual mtg., New
York, N.Y. (K. G. Chesley, TAPPI, 360
Lexington Ave., New York 10017)

19-20. Engineering Project Investment Analysis, Austin, Tex. (D. E. Griffith, Program Director, Taylor Hall 153, College of Engineering, Univ. of Texas, Austin 78712)

19-21. American College of Surgeons, sectional mtg., Dallas, Tex. (Communications Dept., 55 E. Erie St., Chicago, Ill. 60611)

19-21. Biophysical Soc., 12th annual mtg., Pittsburgh, Pa. (I. Bendet, Local Arrangements Chairman, Biophysics Dept., Univ. of Pittsburgh, Pittsburgh 15213)

19-21. National Space Mtg., Cocoa Beach, Fla. (R. E. Freeman, Inst. of Navigation, Suite 912, 711 14th St., NW, Washington, D.C. 20005)

19-23. Transportation Engineering Conf., San Diego, Calif. (W. H. Wisely, 345 E. 47 St., New York, N.Y. 10017)

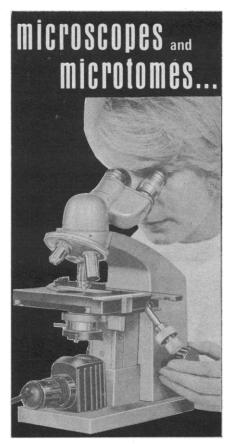
19-25. American Soc. of Civil Engineers, San Diego, Calif. (W. H. Wisely, ASCE, 345 E. 47 St., New York 10017)

21-22. Industrial Pharmacy, Austin, Tex. (W. L. Guess, Dept. of Pharmacy, College of Pharmacy, Univ. of Texas, Austin 78712)

21-25. Institute on **Diabetics**, 5th annual, Aspen, Colo. (C. L. Ginn, Executive Director, 1375 Delaware St., Denver, Colo. 80204)

22. Renal Insufficiency, centennial symp., Chicago, Ill. (University of Illinois Alumni Office, 715 S. Wood St., Chicago 60612)

22-24. American Acad. of Forensic Sciences, Chicago, Ill. (S. R. Gerber, Secretary-Treasurer, 2153 Adelbert Rd., Cleveland, Ohio 44106)



for every application ...

Biological and medical routine and research microscopes

Metallurgical microscopes and metallographs

Photomicrographic cameras and exposuremeters

Phase and Interference Contrast Microscopes

Fluorescence Microscopes

Stereoscopic Microscopes

Heating Stages for thermal analyses and high temperature metallography

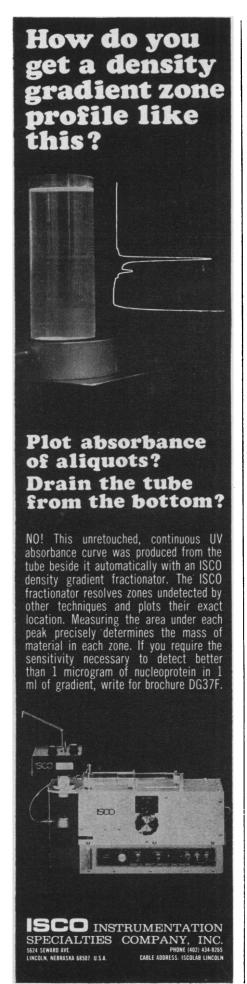
Microtomes for every conceivable sectioning need



Write to:

William J. Hacker & Co., Inc.

Box 646, West Caldwell, New Jersey 07006 (201) 226-8450



22-24. Central Surgical Assoc., Cleveland, Ohio. (B. L. Willman, 1402 S. Grand Blvd., St. Louis, Mo. 63104)

24-3. Canadian American Medical-Dental Assoc., 8th, Park City, Utah. (T. H. Trapasso, Secretary-Treasurer, 816 Ashmun St., Sault Ste. Marie, Mich. 49783)

25. Psychoanalysis, 6th annual scientific conf., New York, N.Y. (A. Blatt, Chairman Program Committee, 7 W. 96 St., New York 10025)

25-29. American Inst. of Mining, Metallurgical, and Petroleum Engineers, 97th annual mtg., New York, N.Y. (C. Hopkins, 345 E. 47 St., New York 10017)

26-28. American Physical Soc., Boston, Mass. (W. W. Havens, Jr., Columbia Univ., New York 10027)

26-28. Association of Asphalt Paving Technologists, Atlanta, Ga. (L. L. Kole, Box 619, Ann Arbor, Mich. 48107)
26-28. Association of Iron and Steel

26-28. Association of Iron and Steel Engineers, Western mtg., San Francisco, Calif. (T. J. Ess, 1010 Empire Bldg., Pittsburgh, Pa. 15222)

26-1. American Assoc. of Junior Colleges, 48th annual conv., Boston, Mass. (The Association, 1315 16th St., NW, Washington, D.C. 20036)

27. National Multiple Sclerosis Soc., New York, N.Y. (S. Lawry, Executive Director, 257 Park Ave., South, New York 10010)

27-28. National Dairy Engineering Conf., 16th annual, East Lansing, Mich. (D. R. Heldman, Dept. of Agricultural Engineering, Michigan State Univ., East Lansing 28823)

27-3. Scintillation and Semiconductor Counter, 11th symp., Washington, D.C. (R. M. Emberson, 345 E. 47 St., New York, v N.Y. 10017)

28. Commission on Engineering Education, 5th annual mtg., Washington, D.C. (Commission on Engineering Education, 1501 New Hampshire Ave., NW, Wash-

ington, D.C. 20036)

28-3. American College of Cardiology, annual mtg., San Francisco, Calif. (W. D. Nelligan, 9650 Rockville Pike, Bethesda, Md. 20014)

28-3. Biology Teachers, Anaheim, Calif. (J. P. Lightner, Secretary, 1420 N St., NW Washington D.C.)

NW, Washington, D.C.)

29-2. Cystic Fibrosis and Related Human and Animal Diseases, symp., New York, N.Y. (National Cystic Fibrosis Research Foundation, 202 E. 44 St., New York 10017)

March

1-3. American Assoc. of Pathologists and Bacteriologists, 65th annual, Chicago, Ill. (J. L. Orbison, Univ. of Rochester Medical Center, 260 Crittenden Boulevard, Rochester, N.Y. 14620)

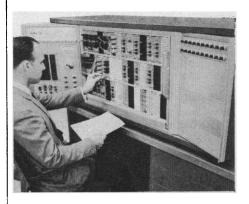
2-8. American Concrete Inst., Los Angeles, Calif. (W. A. Maples, Box 4754, Redford Station, Detroit, Mich. 48219)

4. Industry's Future in the Ocean, Miami, Fla. (J. LaCerda, 95 Merrick Way, Suite 715, Coral Gables, Fla. 33134)

4-5. Goddard Memorial Symp., 6th annual, Washington, D.C. (G. D. Anderson, Honeywell ADG, 1611 N. Kent St., Arlington, Va. 22209)

4-6. American Inst. of Aeronautics and Astronautics, New Orleans, La. (J. Har-

The big analog computer for small budgets



Where else can you find 100-amplifier capacity at a starting price of \$20,000? Nowhere. That's the main reason over 100 labs now use Systron-Donner's SD 40/80 desk-top computer. Three other good reasons are:

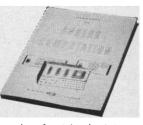
1. Built-in digital logic to handle complex problems involving sub-routines, iterative solutions and automatic parameter changes.

2. Unique patchboard to simplify programming.

3. "Big computer" features like ±100-volts and state-of-the-art non-linear equipment.

These features give you problemsolving ability approaching that of computation centers right in your own lab. Everything is designed to be used by the research worker — without extensive training or the help of a computer programmer.

Free sample of simplified softwear



"Block Programming for Physical Systems," Chapter 5 of our "Handbook of Analog Computation," will be sent to all who inquire. A reply card to request entire 150-page handbook will be enclosed.

SYSTRON DONNER

Systron-Donner Corporation 888 Galindo Street, Concord, California Phone (415) 682-6161 ford, AIAA, 1290 Avenue of the Americas, New York 10019)

4-6. Society of Research Administrators, 2nd annual, Houston, Tex. (W. L. Cullison, Div. of Science and Technology, American Petroleum Inst., 1271 Avenue of the Americas, New York 10020)

4-6. Society of **Toxicology**, Washington, D.C. (C. S. Weil, Mellon Inst., 4400 Fifth

Ave., Pittsburgh, Pa. 15213)

4-6. Technology for Manned Planetary Missions, New Orleans, La. (Meetings Manager, 1290 Sixth Ave., New York 10019)

4-7. Neutron Cross Section and Technology Conf., Washington, D.C. (D. T. Goldman, Natl. Bureau of Standards, Washington, D.C. 20234)

Washington, D.C. 20234)
4-8. Analytical Chemistry and Applied Spectroscopy, Cleveland, Pa. (R. T. Oliver, Alcoa Research Labs., New Kensington,

Pa.)

5-7. Aviation-Electronics and Its Supporting Sciences, Fort Monmouth, N.J. (Commanding General, U.S. Army Electronics Command, Attention AMSEL-RD-LN, Fort Monmouth 07703)

6-8. Fundamental Cancer Research, 22nd annual symp., Houston, Tex. (F. Goff, Special Projects, M. D. Anderson Hospital and Tumor Inst., Univ. of Texas,

Houston 77025)

7-8. The **Doctor and His Hospital**, Inst. of Medicine of Chicago workshop, Chicago, Ill. (R. M. Potter, Secretary, Inst. of Medicine of Chicago, 332 S. Michigan Avenue, Chicago 60604)

Avenue, Chicago 60604)
7-8. Society of Vacuum Coaters, 11th annual, Miami Beach, Fla. (The Society, P.O. Box 3095, Cleveland, Ohio)

7-9. Cerebellum in Health and Disease, Dallas, Tex. (S. P. Cole, Coordinator, Univ. of Texas Southwestern Medical School at Dallas, 5323 Harry Hines Blvd., Dallas 75235)

7-9. Southern Soc. of Anesthesiologists, Dallas, Tex. (R. G. Zepernick, Mercy Hospital, New Orleans, La. 70119)

pital, New Orleans, La. 70119)
8-10. Colorado Medical Soc., Denver.
(D. G. Derry, Colorado Medical Soc., 1809 E. 18 Ave., Denver 80218)
8-10. National Wildlife Federation, 32nd

8-10. National Wildlife Federation, 32nd annual, Houston, Tex. (The Federation, 1412 16th St., NW, Washington, D.C. 20036)

9-10. American Psychiatric Assoc. Colloquium on Postgraduate **Teaching of Psychiatry**, New Orleans, La. (M. L. Enelow, 3439 Prytania St., New Orleans 70115)

10-12. American Soc. for Abrasive Methods, Philadelphia, Pa. (R. J. Mayer, ASAM, 330 S. Wells St., Chicago, Ill. 60606)

10-14. Gas Turbine Conf., Washington, D.C. (A. B. Conlin, Jr., Meetings Manager, 345 E. 47 St., New York 10017)

10-15. American Soc. of Photogrammetry/American Congr. on Surveying and Mapping, annual mtg., Washington, D.C. (W. B. Overstreet, 1819 Franwall Avenue, Silver Spring, Md. 20902)

11-13. American College of Surgeons, sectional mtg. for **Doctors** and **Nurses**, Williamsburg, Va. (Communications Department, 55 E. Erie St., Chicago, Ill. 60611)

11-13. New Tools for Planning and Research Programming, Commercial Chemical Development Assoc., Inc. annual mtg., New York, N.Y. (R. L. Chilenskas, Man-

Cross-reacting Antigens and Neoantigens

With Implications for Autoimmunity and Cancer Immunity

The cross disciplinary nature of modern science and the concurrent tendency toward a high degree of specialization in research has made a necessity of the conference in which scientists from various disciplines with a need but infrequent opportunity to meet, can exchange ideas on a subject of common interest. This conference, sponsored by The Committee on Tissue Transplantation, was planned to promote investigation of certain cross-reacting antigens whose pervasive influence in nature entails the interests of just such a wide range of specialties. Subsequently it was expanded to include other relevant phenomena such as the neoantigens that appear following virus infection and the cancer specific antigens induced by clinical carcinogens.

Undoubtedly a major application of Dr. Trentin's book will be in the field of auto-immune diseases as antigenic crossreactions may explain the etiological basis of auto-immunity.

"Evident throughout, is the ubiquity of certain specific antigens or antigenic moieties in nature, from plants to microbes, to man. Ultimately comes the realization that we must all be host to multiple subclinical autoimmune phenomena, and the wonderment that such processes are not more frequently evident. Or, perhaps they are, but go unrecognized." from the preface

Edited by John J. Trentin, Ph.D., Professor and Head, Division of Experimental Biology, Baylor University College of Medicine, Texas Medical Center, Houston, Texas.

1967 / 150 p. / \$9.25 hardbound, \$6.75 paper back

The Williams & Wilkins Company

428 E. Preston St., Baltimore, Md. 21202

ager of Commercial Development, M & T Chemicals Inc., New York, N.Y.)

11-14. Canaveral Council of Technical Societies, 5th space congr., Cocoa Beach, Fla. (E. P. Wynne, General Electric Co., Apollo Support Dept., P.O. Box 7011, Cape Canaveral, Fla. 32920)

11-14. Western Metal and Tool Conf. and Exposition, Los Angeles, Calif. (J. A. Fellows, Director of Technical Programming, Metals Park, Ohio)

12-14. Fire Weather Conf., Salt Lake City, Utah. (K. C. Spengler, 45 Beacon St., Boston, Mass. 02108)

13-15. Instrumentation for the Iron and Steel Industry, 18th natl. conf., Pittsburgh, Pa. (T. Schuerger, U.S. Steel Corp., Research Lab., Monroeville, Pa. 15146)

13-16. Optical Soc. of America, spring mtg., Washington, D.C. (M. W. Warga, Executive Secretary, 1155 16th St., NW, Washington, D.C. 20036)

14-15. Forum on Geology of Industrial Minerals, 4th annual, Austin, Tex. (W. L. Fisher, Bureau of Economic Geology, Univ. of Texas, Austin 78712)
14-16. Arizona Acad. of General Practice.

14-16. Arizona Acad. of General Practice, Tucson. (P. R. Boykin, Executive Secretary, P.O. Box 441, Scottsdale, Ariz. 85252)

14-16. Biomathematics and Computer Science in the Life Sciences, 6th annual, Houston, Tex. (Office of the Dean, Univ. of Texas Graduate School of Biomedical Sciences at Houston, Division of Continuing Education, P.O. Box 20367, Houston 77025)

14-20. Marquette Univ. Medical Alumni Assoc., clinical conf., Palm Springs, Calif.

(R. H. Herzog, Executive Secretary, The Association, 561 N. 15 St., Milwaukee, Wis. 53233)

15-16. State Mental Health Representatives, 14th annual, Chicago, Ill. (W. Wolman, Dept. of Mental Health, 535 N. Dearborn St., Chicago 60610)

18-20. Lubrication and Lubricant Rheology, symp., Ann Arbor, Mich. (W. O. Winer, Dept. of Mechanical Engineering, 225 West Engineering Bldg., Univ. of Michigan, Ann Arbor 48104)

18-20. American Acad. of **Pediatrics**, spring session, Atlanta, Ga. (G. E. Hughes, Secretary for Meetings, 1801 Hinman Ave., Evanston, Ill. 60204)

18-21. American Physical Soc., Berkeley, Calif. (W. Whaling, California Institute of Technology, Pasadena 91109)

18-21. American Radium Soc., annual mtg., Miami Beach, Fla. (J. L. Pool, Executive Secretary, Memorial Hospital, 444 E. 68 St., New York, N.Y.)

18-22. National Assoc. of Corrosion Engineers, 24th annual conf. and show, Cleveland, Ohio. (T. J. Hull, 980 M & M Building, Houston, Tex. 77002)

19-20. Equipment Manuals Symp., Washington, D.C. (National Security Industrial Assoc., 1030 15th St., NW, Washington, D.C. 20005)

19-20. Ocean Sciences and Engineering of the Atlantic Shelf, natl. symp., Philadelphia, Pa. (T. Evans, Conference Management Organization, Inc., Sheraton Park Hotel, 2660 Connecticut Ave., NW, Washington, D.C. 20008)

19-21. American Railway Engineering Assoc., Chicago, Ill. (E. W. Hodgins, Ex-

ecutive Secretary, 59 E. Van Buren St., Chicago 60605)

20. Suicidology, 1st natl. conf., Chicago, Ill. (E. S. Shneidman, Center for Studies of Suicide Prevention, National Inst. of Mental Health, 5454 Wisconsin Ave., Chevy Chase, Md. 20203)

20-23. American Orthopsychiatric Assoc., 45th annual, Chicago, Ill. (The Association, 1790 Broadway, New York 10019)

21-22. Modulation Transfer Function, Boston, Mass. (Society of Photo-Optical Instrumentation Engineers, P.O. Box 288, Redondo Beach, Calif. 90277)

21-23. Symp. on Microwave Power, 3rd symp., Boston, Mass. (C. Olsen, % Eimac, Division of Varian Assoc., 301 Industrial Way, San Carlos, Calif. 94070)

22-23. Montana Medical Assoc., Helena. (L. R. Hegland, The Association, P.O. Box 1692, Billings, Mont. 59103)

22-23. Socio-Economics of Health Care, 2nd natl. congr., Chicago, Ill. (H. W. Doan, Dept. of Health Care Services, American Medical Assoc., 535 N. Dearborn St., Chicago 60610)

22-27. California Medical Assoc., San Francisco. (R. L. Thomas, 693 Sutter St., San Francisco 94102)

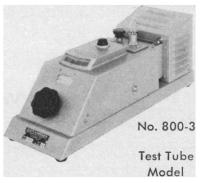
23. New Jersey Post Graduate Anesthesia Seminar, 9th annual, Cherry Hill. (P. A. Tucci, 22 The Fairway, Upper Montclair, N.J. 07043)

23-24. Missouri Soc. of Anesthesiologists, Kansas City. (G. W. N. Eggers, Jr., Univ. of Missouri Medical Center, Columbia 65201)

24-27. American Assoc. of Dental



Klett Summerson Photoelectric Colorimeter



KLETT COLONY MARKER and TALLY

This instrument takes the drudgery and error out of the counting of bacterial colonies.



Klett MANUFACTURING CO., INC., 179 East 87th Street, New York, 28, N.Y.



Chromerge makes old, cumbersome methods of cleaning labware obsolete...eliminates danger and time-wasting of previous methods of preparation...long, unsatisfactory job of boiling sulphuric acid with potassium dichromate.

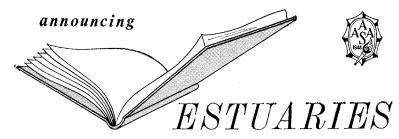
Chromerge does a better cleaning job, because its more powerful cleaning solution removes stubborn deposits which resist other cleaners, yet it protects

glass surfaces, is chemically and bacteriologically clean...preserves the capacity of volumetric wear, gives a perfect miniscus for precise volumetric

MANOSTAT Corporation
Dept. 524
20-22 N. Moore St. N.Y., N.Y. 10013

20-22 N. Moore St. N.Y., N.Y. 10013

Available through your laboratory supply dealers



Estuaries is the first comprehensive collection of scientific papers covering the comparatively new field of estuarine research. The volume contains seventy-one articles on physical and biological factors, geomorphology, sediments and sedimentation, microbiota, ecology, evolution, fisheries, human influences, and pollution. Estuaries is based on the 1964 Conference on Estuaries, Jekyll Island, Georgia; additional papers have been included to make it the definitive work on the subject. A supplementary bibliography

lists the more recent contributions to the discipline.

Edited by George H. Lauff and published in April 1967 by the American Association for the Advancement of Science, Estuaries consists of 776 pages, a supplementary bibliography of 437 entries, 1639 literature citations, 525 illustrations, 85 tables, and an index of more than 14,000 entries.

Cash orders by AAAS members \$24.00, regular price \$27.00.

British Agents: Bailey Bros. and Swinfen, Ltd.
Warner House, 48 Upper Thames Street, London E.C.4 England

City	State	z	ip Code
Address			
Name (please print)			
My check or money order i	in the amount of \$		is enclosed.
Please accept my order for	volumes of Estuaries.		
To AAAS PUBLICATIONS, 1	515 Massachusetts Ave., NW,	Washington, D	.C. 20005

Schools, 45th annual session, San Francisco, Calif. (D. E. Mattson, 211 E. Chicago Ave., Chicago, Ill. 60611)

24-29. American College of Allergists, 24th annual congr., Denver, Colo. (E. Bauers, 2160 Rand Tower, Minneapolis, Minn. 55402)

24-30. American Soc. of Clinical Pathologists, New Orleans, La. (L. H. Hoyt, Methodist Hospital, Indianapolis, Ind.)

25-27. Operations Research Symp., 2nd, Pittsburgh, Pa. (H. O. Teeple, TAPPI, 360 Lexington Ave., New York 10017)

25-27. Simulation and Support Conf., AIAA 2nd flight test, Los Angeles, Calif. (Meetings Manager, American Inst. of Aeronautics and Astronautics, 1290 Sixth Ave., New York 10019)

25-28. National Plant Engineering and Maintenance Show and Conf., Philadelphia, Pa. (K. E. Knowles, 245 Park Ave., New York 10017)

25-28. Organic Solid State Chemistry Symp., Upton, N.Y. (G. Adler, Brookhaven National Lab., Upton, L.I., N.Y. 11973)

25-28. Southeastern Surgical Congr., Washington, D.C. (A. H. Letton, 340 Boulevard NE, Atlanta, Ga. 30312)

27. Oral Cancer Symp., 6th, Pough-keepsie, N.Y. (M. A. Engelman, One East Academy St., Wappingers Falls, N.Y. 12590)

27. Association for the Advancement of **Psychoanalysis**, New York, N.Y. (E. Schattner, Secretary, 147 E. 50 St., New York 10022)

27-28. Railroad Conf., Chicago, Ill. (Institute of Electrical and Electronics Engineers, Inc., 345 E. 47 St., New York 10017)

27-29. Linear Free Energy Relationships, 2nd conf., Irvine, Calif. (J. E. Leffler, Dept. of Chemistry, Florida State Univ., Tallahassee 32306)

28-30. American Fertility Soc., San Francisco, Calif. (H. H. Thomas, 944 S. 18 St., Birmingham, Ala. 35205)

28-31. Missouri State Medical Assn., Kansas City. (R. McIntyre, The Association, 515 E. High St., Jefferson City, Mo. 65101)

29. Symbiosis, symp., Fullerton, Calif. (L. A. Stevens, Div. of Life Sciences, Fullerton Junior College, 321 Chapman Avenue, Fullterton 92634)

29-30. Rural Health, 21st natl., Seattle, Wash. (B. L. Bible, 535 N. Dearborn St., Chicago, Ill. 60610)

29-31. American Psychosomatic Soc., Inc., Boston, Mass. (H. Weiner, Secretary-Treasurer, 265 Nassau Road, Roosevelt, N.Y. 11575)

29-31. American Soc. of Group Psychotherapy and Psychodrama, New York, N.Y. (H. B. Weiner, 1323 Avenue N, Brooklyn, N.Y. 11230)

29-31. American Soc. of Internal Medicine, Boston, Mass. (E. E. Daleske, 3410 Geary Blvd., San Francisco, Calif. 94118)

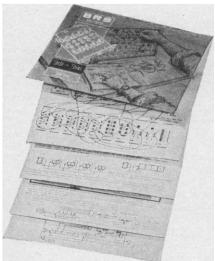
29-31. Arizona Chest Disease Symp., Tucson. (L. D. Hudson, P.O. Box 6067, Tucson 85716)

29-2. National Science Teachers Assoc., natl. conv., Washington, D.C. (R. H. Carleton, NSTA, 1201 16th St., NW, Washington, D.C. 20036)

30-3. American Soc. of Abdominal Surgeons, Chicago, Ill. (B. F. Alfano, 675 Main St., Melrose, Mass. 02176)

AN INTRODUCTION TO DIGITAL LOGIC

especially written for the non-engineer



Write for a complimentary copy of Bits-of-Digi.

Fifty pages of well diagrammed, uncomplicated, valuable information explaining solid state digital logic.

The 50-page manual <u>Bits-of-Digi</u> is an outgrowth of a continuing BRS program to introduce researchers to solid state, digital logic applications. For almost two years, BRS has been conducting 3-day, complimentary, short courses for researchers, introducing them to the simplicity of digital logic packages for event programming, recording, and analyzing data. <u>Bits-of-Digi</u> follows the same pattern as a sort of do-it-yourself introduction. Through illustration, narrative and diagrams, the reader can gain valuable comprehension of circuit construction and a vocabulary of the "language". <u>Bits-of-Digi</u> approaches the subject from a non-engineer, researcher viewpoint. It is very basic. But, with a little diligence, a lot can be learned. What is an "AND GATE"—or a "FLIP FLOP"...how do you set up a "RING COUNTER" or an "INTER-EVENT TIME RECORDING" circuit? You'll learn how to read and draw logic diagrams. This manual will undoubtedly become a well-used reference tool whenever you're talking digital systems with engineers or researchers.

If you'll drop us a line on your letterhead, we'll be happy to send along a copy of Bits-of-Digi with our compliments. We hope you'll find it useful and helpful. We ultimately hope you find the world of special-need digital logic programming so simple and so versatile you'll put BRS solid state digital equipment to work in your laboratory.



5451 HOLLAND DRIVE BELTSVILLE, MARYLAND 30-3. Technical Assoc. of **Pulp and Paper** Industry, 5th water conf., Portland, Ore. (The Association, 360 Lexington Ave., New York 10017)

31-3. Erosion as Related to Air and Water Pollution, Las Vegas, Nev. (R. B. Reams, Desert Research Inst., Univ. of Nevada, Reno 89507)

31-4. American Assoc. of Cereal Chemists, 53rd annual, and American Oil Chemists Soc., 58th annual, joint mtg., Washington, D.C. (R. J. Tarleton, 1955 University Ave., St. Paul, Minn. 55104)

31-4. Materials Engineering and Sciences, conf. and exposition, Philadelphia, Pa. (C. S. Grove, Jr., 5110 Brockway Lane, Fayetteville, N.Y. 13066)

31-5. American Chemical Soc., 155th spring natl. mtg., San Francisco, Calif. (A. T. Winstead, 1155 16th St., NW, Washington, D.C. 20036)

31-7. North American Clinical Dermatologic Soc., New Orleans, La. (E. F. Finnerty, The Society, 510 Commonwealth Ave., Boston, Mass. 02115)

International and Foreign Meetings

February

6-8. Weed Control, Inter-American conf., New Orleans, La. (J. B. Baker, Dept. of Botany and Plant Pathology, Louisiana State Univ., Baton Rouge)

7-9. Canadian Inst. of Surveying, annual mtg., Ottawa, Ont., Canada. (Secretary, The Institute, 157 McLeod St., Ottawa)

12-16. Early Behavior and Brain Mechanisms, London, England. (Ciba Foundation, 41 Portland Pl., London, W.1)

14-16. Automatic Laboratory Techniques, exhibition and conference, 2nd, London, England. (Southern Exhibitions Ltd., 11 Liverpool Terrace, Worthnigton, England)

14-16. International Solid State Circuits Conf., Philadelphia, Pa. (L. Winner, 152 W. 43 St., New York 10036)

17-21. South East Asia and Pacific Area League against Rheumatism, 1st cong., Bombay, India. (M. M. Desai, Indian Rheumatism Soc., Fetch Manzil, 457-59, Lamington Road, Bombay 4)

17-25. International Trade Exhibitions of Building Material, Structural Elements and Interior Finishing, Munich, Germany. (Munchener Messe-Und Ausstellungsgesell-Schaft MBH., Theresienhohe 13, 8 Munich 12)

19-23. Australian Conf. on Electrochemistry, Melbourne. (D. F. A. Koch, % Div. of Mineral Chemistry, Commonwealth Scientific and Industrial Research Organization, P.O. Box 124, Port Melbourne, Victoria. Australia)

Victoria, Australia)

20-21. New Synthetic Fibers, Rotterdam, Netherlands. (Secretariat, % Holland Organizing Centre, 16 Lange Voorhout, The Hague, Netherlands)

20-6. Commonwealth Broadcasting, 7th conf., Wellington, Wairakei, Auckland, New Zealand. (M. Stephens, Commonwealth Broadcasting Conference Secretariat, Broadcasting House, London, W.1, England)

22. Pollution Symp., Montreal, Canada. (K. Dunlop, Domtar Chemicals Ltd., 1155 Dorchester Blvd. W, Montreal)

SAGE SYRINGE PUMPS

Infuse Fluids Accurately, Uniformly, and Reproducibly

Two types available: constant speed models drive syringes at a number of particular rates; variable speed models offer continuously adjustable rates. Each in two sizes—small units accept all syringes up to 10 cc; large to 100 cc.

Large Variable Speed Series 255

Dial the precise flow rate desired. Versatile pumps offer a tremendous range of flow rates, unaffected by changes in back pressure or line voltage.

Three models. Flow rate range for each model is:

(255-1) 0.005 μ 1/min to 29 ml/min.

(255-2) 0.02 μ l/hr to 98 ml/hr. (255-3) 0.02 μ l/day to 118 ml/day.

Series 255 (100 cc capacity) \$395.00

Small Constant Speed Series 234



Seven models available—each offering a number of flow rates for every syringe size. Reproducibility is $\pm 0.1\%$. Flow rates range from 0.112 μ l/day to 16.8 ml/min—depending on specific model.

Series 234 (10 cc capacity)

\$145.00

Infusion/ Withdrawal Pumps



Sage Series 255 pumps are available in infusion/withdrawal models. A large constant speed version (Series 249W) is also available at \$290.00.

Series 255W(100 cc capacity) \$470.00

Send for complete catalog.

SAGE INSTRUMENTS, INC.

2 Spring Street, White Plains, N.Y. 10601 914 949-4121