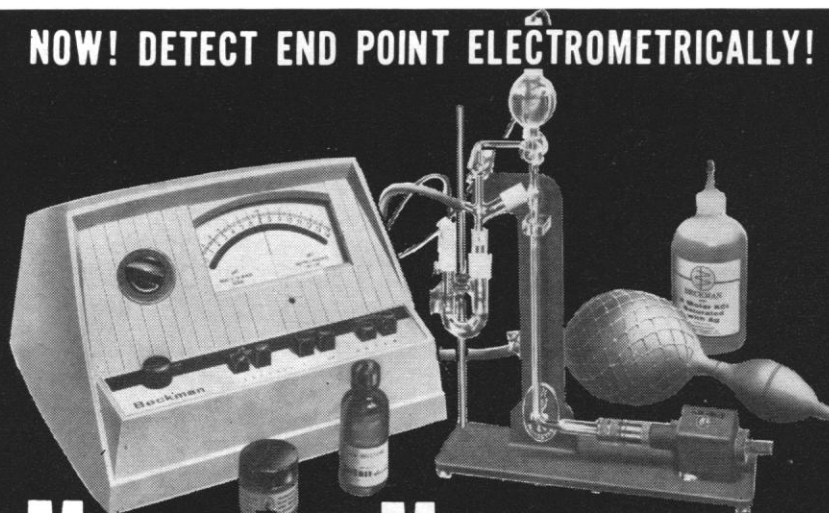


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\*Pat. Appl. for

M15654 MANOSTAT MICROTITRATOR complete with Beckman Microelectrodes and all accessories, but without pH meter 245.00  
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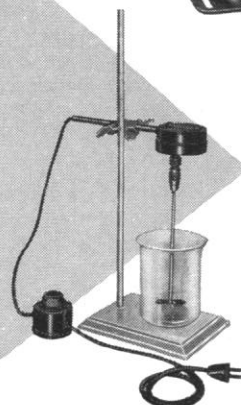
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Metallurgy, intern. symp., Pittsburgh, Pa. (J. F. Elliott, Room 8-109, Massachusetts Inst. of Technology, Cambridge 39.)

27-1. American Psychiatric Assoc., Philadelphia, Pa. (C. H. Hardin Branch, 156 Westminster Ave., Salt Lake City, Utah.)

29-1. American Inst. of Electrical Engineers, Syracuse, N.Y. (N. S. Hibshman, AIEE, 33 W. 39th St., New York 18.)

30-1. Eastern States Health Education Conf., New York, N.Y. (I. Galdston, New York Acad. of Medicine, 2 E. 103 St., New York 29.)

30-1. Youth Conference on the Atom, 1st natl., Atlantic City, N.J. (W. Adams, Bozell & Jacobs, Inc., 2 W. 45 St., New York 36.)

30-2. American Assoc. for Cleft Palate Rehabilitation, Philadelphia, Pa. (D. C. Spriestersbach, University Hospitals, Iowa City, Iowa.)

30-2. American Goiter Assoc., Chicago, Ill. (J. C. McClintock, 149½ Washington Ave., Albany, N.Y.)

30-2. American Physical Soc., Washington, D.C. (K. K. Darrow, Columbia Univ., New York 27, N.Y.)

30-2. Eastern College Science Conf., 13th annual, Boston, Mass. (A. F. Lett, ECSC, Suffolk Univ., Boston 14)

30-2. Kansas Acad. of Sciences, Lawrence. (J. O. Harris, Kansas State College, Manhattan.)

30-3. Student American Medical Assoc., Chicago, Ill. (R. F. Staudacher, 430 N. Michigan, Chicago 11.)

30-4. American Assoc. for the Study of Neoplastic Diseases, Gatlinburg, Tenn. (B. H. Sisler, Box 268, Gatlinburg.)

### May

1-3. Prevention of Bacterial Resistance to Antibiotics, intern. symp., Perugia, Italy. (Segreteria del Simposio, Clinica Ostetrica e Ginecologica, Policlinico, Perugia.)

2. Idaho Acad. of Science, Moscow. (E. J. Larrison, Sec.-Treas., Dept. of Biological Sciences, Univ. of Idaho, Moscow.)

2-3. American Psychosomatic Soc., 16th annual, Atlantic City, N.J. (M. Rosenbaum, APS, 265 Nassau Rd., Roosevelt, N.Y.)

2-7. Experimental Biology, intern. symp. (celebration of Lazzaro Spallanzani), Reggio and Pavia, Italy. (C. Jucci, Director, Istituti di Zoologia L. Spallanzani, Università-Pavia, Palazzo Botta, Pavia, Italy.)

2-9. International Union for Health Education of the Public, 4th conf., Dusseldorf, Germany. (M. L. Viborel, 92, rue St. Denis, Paris 1<sup>er</sup>, France.)

3. American Federation for Clinical Research, annual, Atlantic City, N.J. (G. E. Schreiner, Georgetown Univ. Medical Center, Washington 7.)

3. Periapical Lesions-Pacific Coast Oral Pathology Workshop, 1st annual, Los Angeles, Calif. (W. Bullock, Dept. of Pathology, Univ. of Southern California School of Medicine, 1200 N. State St., Los Angeles.)

3-7. American Assoc. of Cereal Chemists, 44th annual, Washington, D.C. (J. W. Pence, AACC, Western Utilization Research Laboratories, Albany, Calif.)

(See issue of 20 March for comprehensive list)

# Equipment

The information reported here is obtained from manufacturers and from other sources considered to be reliable, and it reflects the claims of the manufacturer or other source. Neither Science nor the writer assumes responsibility for the accuracy of the information. A coupon for use in making inquiries concerning the items listed appears on page 854.

■ **MILLIVOLTMETER INDICATOR** is a servo-driven potentiometer with accuracy guaranteed by the manufacturer to be  $\pm 0.1$  percent. The slide-wire of the instrument is 144 in. long and may be linear or nonlinear with equal accuracy. A Zener voltage reference is used. Display is provided alternatively by a calibration printed on a tape carrying the slide-wire or by a digital in-line counter geared to the slide-wire drive. For use with thermocouples the instrument is provided with automatic cold-junction compensation. Provision has been made for inclusion of binary and decimal contact-making counters to actuate digital recorders. Provision has also been made for addition of a retransmitting slide-wire as a signal source for auxiliary devices. (B & H Instrument Co., Dept. 708)

■ **VACUUM SYSTEM COMPONENTS** offered as building blocks for 4-in. vacuum systems include a stainless-steel cold trap and a nickel-plated baffle. The trap operates 8 to 10 hr on one 0.6-lit. filling of liquid nitrogen. The baffle includes cooling coils on the baffle disk and an external coil on the baffle shell. (Veeco Vacuum Corp., Dept. 693)

■ **OSCILLOGRAM SCANNER** accepts strips up to 1000 ft long, displaying 66-in. lengths at one time. Record traverse speed can be adjusted to a maximum of 100 ft/min. The illuminated scanning surface and the transport mechanism may be set at any convenient angle. Reading heads yielding digital or analog outputs are available. (Gerber Scientific Instrument Co., Dept. 706)

■ **RESISTANCE WELDING HEAD** designed for ultrafine welding—for example, joining gold-gallium wire to Kovar, platinum filaments to posts, and aluminum foil to itself—occupies  $4\frac{1}{4}$  in. of bench space. Electrode pressure is adjustable between 4 oz and 15 lb. Maximum capacity is 80 watt sec. The head is operated by a foot pedal. (Weldmatic, Dept. 707)

■ **PULSE GENERATOR** provides repetition rates from 20 cy to 2 Mcy/sec and may be triggered externally. Pulse width is variable from 0.05 to 1000  $\mu$ sec, pulse delay from 0 to 10,000  $\mu$ sec. Pulse amplitude is 5 v positive or negative into a 50 ohm load. Rise and fall time is 0.02  $\mu$ sec. (Rutherford Electronics Co., Dept. 696)

■ **MULTIPLIER PHOTOTUBES** newly available comprise one 15-stage, five 11-stage and two 10-stage tubes. All have maximum spectral response in the blue/violet region (4000 to 4200 Å); two are fitted with quartz windows to allow adequate response to ultraviolet radiation. The tubes are designed for end-on viewing and have cesium-antimony photocathodes, ranging from 20 to 111 mm in useful diameter, with optically flat and parallel surfaces. (Mullard Ltd., Dept. 720)

■ **OPTICAL PICKUP** contains a phototransistor, a light source, and a lens system. The pickup detects, by reflection, graduations placed on a moving surface whose

rotational or linear speed is to be measured. Pressure-sensitive adhesive film printed with lines is available for application to shafts or other surfaces. Indicators are available to cover ranges from 0.1 to  $10^6$  rev/min (full scale) with 1 percent accuracy. (Southwestern Industrial Electronics Co., Dept. 718)

■ **DIGITAL VOLTMETER** features sensitivity of 100  $\mu$ v for d-c and 1 mv for a-c. The difference between a reference voltage and the signal voltage is detected by a chopper and applied, after amplification, to a stepping switch that adjusts the tap on the reference-voltage potentiometer. Four digits and a decimal point are displayed. Input impedance at null

## Millipore BRIEF #241

### Colorimetric Determination of Siliceous Atmospheric Contaminants.

Particulate silica and silicates are collected on membrane filters, dissolved in hydrofluoric acid, and determined colorimetrically as yellow silicomolybdate or as molybdenum blue after reduction with 1-amino-2-naphthol-4-sulfonic acid. The dual sensitivity obtained by the use of the two colors permits accurate analyses in the relatively large range of 1 microgram to 2.5 milligrams without the necessity of taking an aliquot. The small air volumes required are easily sampled with hand-operated equipment.

Talvitie, N. A. and Hyslop, Frances  
American Industrial Hygiene Association Journal,  
9(1)54-58, Feb., 1958

## Millipore BRIEF #195

### Measuring Quality of Injection Waters.

A field unit utilizing a 47mm diameter type HA Millipore Filter disc provides flow rate data indicative of the plugging (clogging) tendencies of the water used for secondary-recovery injection as well as physical data on the size, quantity, and nature of suspended material in the water (for microscopic examination, chemical spot tests, bacteriological tests, gravimetric determinations, etc.).

Felsenthal, Martin and Carlberg, B. L.  
The Petroleum Engineer, B-53, B-55,  
B-58, November, 1956.

## Millipore BRIEF #190

### A Method for Determining Aero-Allergen Concentrations With The Molecular Filter Membrane.

An apparatus, consisting of 6 sampling heads containing MF filter discs, is described for obtaining accurately the diurnal variation of airborne pollens. A clock operated switch automatically connects each head in turn to a vacuum manifold for a 30-minute period each 4 hours thus obtaining a 24-hour sampling profile. The MF discs are then rendered transparent and stained for microscopic examination of the collected pollen.

Cryst, S.; Gurney, C. W.; and Hansen, W.  
Journal of Laboratory and Clinical Medicine  
Vol. 46, No. 3, Sept., 1955.

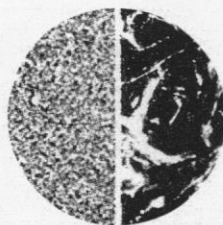
## Millipore BRIEF #188

### Determination of Yeast in Sugar Liquors Using Membrane Filters.

Experiments extending over a period of a year have indicated that the MF is a reliable method for rapidly concentrating yeast cells in liquid sugars. Comparative results of the MF and standard plate procedures are given. The report concludes that the MF because of its speed (1 day vs. 5 days) and efficiency is an excellent bacteriological tool on the control of yeast fermentation in a sugar refinery.

Moroz, R.  
The International Sugar Journal  
LIX (699) 70-71, March, 1957.

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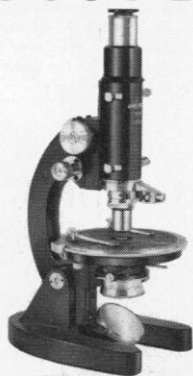
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■ **FUNCTION FITTER** is a self-contained analog computing component for the simulation of arbitrary functions. It features ten straight-line segments with adjustable tangent parabolic rounding and adjustable slopes, break points, and offset. Incremental slopes are adjustable over a range greater than  $\pm 10:1$ . George A. Philbrick Researches, Inc., Dept. 709)

■ **MELTING POINT APPARATUS** provides rapid heating to approach within 5° or 10°C of the melting point and a slower rate for observation of the melting-point temperature. Cooling from 300° to 100°C without compressed air requires 10 min; with compressed air, it requires 4 min. (Arthur S. LaPine & Co., Dept. 724)

■ **CURRENT-PULSE GENERATOR** produces pulses with rise times as short as 5  $\mu$ sec and with durations of 10, 20, 50, and 100  $\mu$ sec. Pulse amplitudes are adjustable from 0 to more than 2 amp. Pulse repetition frequency is adjustable from 100 to 10,000 per second. The generator may also be triggered from an external source or from a panel pushbutton. A synchronizing pulse is produced 5  $\mu$ sec before the current pulse output occurs. (Rese Engineering Inc., Dept. 717)

■ **FAST-NEUTRON SURVEY METER** operates on the proton-recoil scintillation principle. The instrument measures energy flux density in three ranges from 0 to 7.5 mrem/hr to 0 to 750 mrem/hr. The detector is a hollow polyethylene sphere coated on the inside with ZnS phosphor. A 5819 multiplier phototube penetrates the sphere to detect the scintillation pulses. (National Radiac, Inc., Dept. 722)

JOSHUA STERN  
National Bureau of Standards,  
Washington, D.C.

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**Biologist**, Ph.D., with teaching and research experience desires position. Interested in microbiology, bacteriology, parasitology, general biological science, and general biology. Prefers small or medium-sized institution. Box 67, SCIENCE. X

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**Physiologist**; Ph.D.; recommended as outstanding student, enthusiastic and competent researcher, interested and successful teacher. Medical Bureau, Burneice Larson, Director, 900 North Michigan, Chicago. X

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Recently the top executives of several large corporations were asked what factor had played the most important part in the growth of their respective firms. Almost to a man the answer was the development of new products. Most said that ten years ago their companies were selling less than 50 percent of the products they now market.

It's no wonder then that industry is now spending money at a feverish pace to develop new materials and equipment which will insure their future markets. In fact, so cognizant is big business of the need for this type of research that this year industrial research expenditures will reach a new all-time high.

Of course, developing new products in the research laboratory is only half the battle, for industry must also find some way of exploiting all the possible applications that exist for their new discoveries. Ironically enough the effort to keep new developments flowing from the research laboratories has far exceeded the attempts to find applications for them. While enormous amounts are spent in new developments, very little is spent in getting the information about these developments to every research scientist who might find applications for them in other areas.

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