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HIGH QUALITY OPTICS  
10X OCULAR

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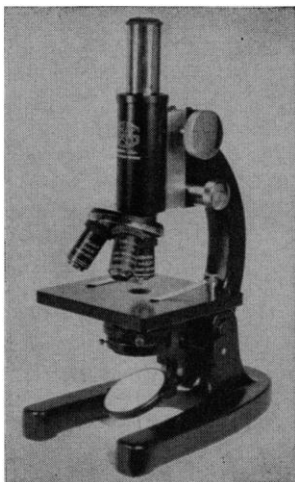
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**\$192.00**

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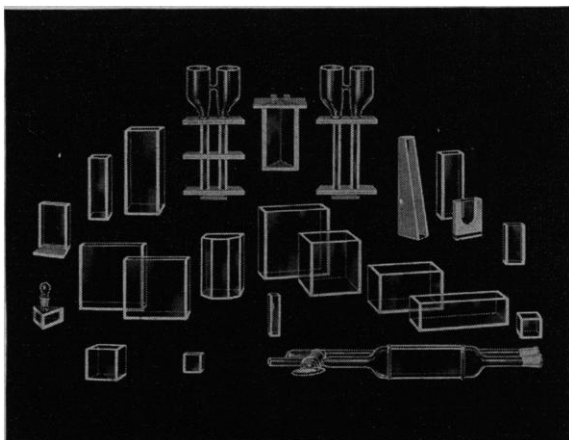


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TAS/RC. 56

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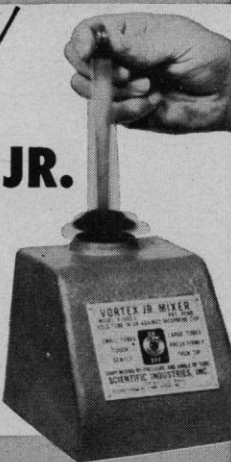
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Just hold the tube or other vessel in your hand... press it against the revolving neoprene cup. A vortex forms at once for immediate mixing action!



**No Stoppers... No Rods  
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Saves time and energy. For use whenever a quick mix is called for... works well with any shape vessel.

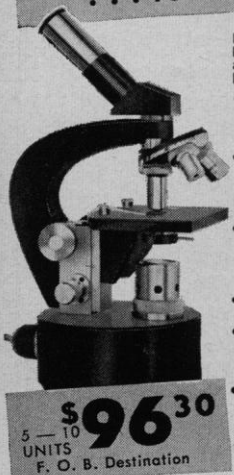
- Test tubes... micro to 40 mm.
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**4-G-3**

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Company

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City  State

## New Products

*The information reported here is obtained from manufacturers and from other sources considered to be reliable. Neither Science nor the writer assumes responsibility for the accuracy of the information. All inquiries concerning items listed should be addressed to the manufacturer. Include the department number in your inquiry.*

■ **RECORDER** for Pirani-type vacuum gage is a strip-chart galvanometer type. Marking is rectilinear on pressure-sensitive paper; galvanometer is clamped for marking every 2 seconds. Gear trains are available for various synchronous speeds. Vacuum ranges are 0 to 25 and 0 to 1000  $\mu$ -Hg. Accuracy is said to be  $\pm 2$  percent of full scale. Dimensions are 3 $\frac{5}{8}$  by 5 $\frac{5}{8}$  by 4 $\frac{1}{8}$  in. and weight with 63-ft chart roll is 3 $\frac{1}{2}$  lb. (Arthur F. Smith, Inc., Dept. Sci729A, 311 Alexander St., Rochester 4, N.Y.)

■ **COUNTER-TIMER** is an all solid-state instrument that totalizes random events over any of eight time intervals from 10<sup>-6</sup> to 10 seconds, and measures frequency from 1 to 10<sup>6</sup> cy/sec; period from 10<sup>-6</sup> to 10<sup>7</sup> seconds, and phase angle from 0 to 180 deg. The crystal-controlled clock signal, said to be stable to  $\pm 0.3 \times 10^{-6}$  sec/wk, is brought out to the front panel. Square waves in seven decade steps from 0.1 to 10<sup>6</sup> cy/sec are also provided. (Transistor Specialties, Inc., Dept. Sci730A, Terminal Drive, Plainview, N.Y.)

■ **SURFACE INDICATOR ACCESSORY** has a sapphire stylus with a chisel point 1/16 in. wide and a radius of 0.0005 in. Its use permits surface measurements of cutting edges, knife edges, and components with very small outside diameter (such as wire) in the range 0 to 1000  $\mu$ in. The maximum force exerted by the stylus is 2 gm. (Brush Instruments Div. of Clevite Corp., Dept. Sci775, 37th and Perkins Ave., Cleveland 14, Ohio)

■ **PRESSURE CALIBRATOR** consists of a frequency-modulated oscillator, an integral power supply, and a plug-in unit containing a selected, precise, pressure pickup with heater and thermostat. Plug-in units are interchangeable, covering absolute and differential ranges from 10 to 3000 lb/in.<sup>2</sup> and gage pressures up to 10,000 lb/in.<sup>2</sup> Output can be displayed on a frequency counter or on printed paper tape. Output frequency is 10 kcy/sec at zero-input. Frequency deviation of 2.5 kcy/sec may be multiplied by 2 or 4 by a plug-in accessory. Combined linearity and hysteresis is  $\pm 0.05$  percent for ranges up to 2500 lb/in.<sup>2</sup> and  $\pm 0.08$  percent for ranges above 2500 lb/in.<sup>2</sup> Higher accuracy is available at increased cost. (Wiancko Engineering Co., Dept. Sci768, 255 N. Halsted Ave., Pasadena, Calif.)

■ **IONIZATION VACUUM PUMP** is said to achieve enhanced speed and stability by virtue of a three-electrode construction that includes a sputtering cathode. Speeds claimed are: air, 25 lit./sec.; argon, 8 lit./sec; methane, 28 lit./sec; and hydrogen, 15 lit./sec. Speed is constant over the operating pressure range of the pump. Ultimate pressure is less than 10<sup>-10</sup> mm-Hg. The pump can be baked at 450°C. Life of the replaceable sputtering cathode is more than 10,000 hours at 10<sup>-6</sup> mm-Hg. (Consolidated Vacuum Corp., Dept. Sci750, 1775 Mt. Read Blvd., Rochester 3, N.Y.)

■ **PHOTOMICROGRAPHY ADAPTER** permits a still or motion-picture camera to be used with microscopes. Exposures are made with the camera lens set at infinity. A viewing system with cross hairs permits the specimen to be viewed and the field of view selected and focused. All the light is used for the exposure and is deflected for viewing. The camera shutter is used in the normal fashion. (Lafayette Radio, Dept. Sci788, 165-08 Liberty Ave., Jamaica 33, N.Y.)

■ **TIME CODE GENERATOR** furnishes a 36-bit code indicating time of day and day of year in a proposed Inter-Range Instrumentation Group format and is read out once each second at a 100-pulse/sec rate. A leap-year switch provides for the extra day every 4 years. Two outputs are in d-c-level-shift form and modulated 1000 cy/sec carrier. Stability is said to be 3 parts in 10<sup>8</sup>. Provision is made for synchronization with station WWV. (Electronic Engineering Co., Dept. Sci778, 1601 E. Chestnut Ave., Santa Ana, Calif.)

■ **ELECTRONIC MICROMETER** is an opposed-head device that permits measurement from two sides to the center line of a fragile or compressible part. Opposing micrometer tips may be zeroed against each other at a selected reference position or at the anvil surface. Controls bring the upper tip downward, to touch the top of the part being measured, and the lower tip upward through a hole in the lower anvil to contact the bottom. Measured values are displayed on counters to 20  $\mu$ in. (J. W. Dice Co., Dept. Sci782, Englewood, N.J.)

■ **SOUND-PRESSURE ALARM** operates relay contacts at a preset sound or vibration level. The standard model operates at 70 to 100 db sound pressure level and has a differential of 2 db. An electronic delay prevents actuation on single impacts. (H. H. Scott, Inc., Dept. Sci777, 111 Powder Mill Rd., Maynard, Mass.)

JOSHUA STERN

National Bureau of Standards,  
Washington, D.C.

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**GAMMA GLOBULIN**

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## PHOTOVOLT LINE-OPERATED MULTIPLIER FLUORESCENCE METER

model  
**540**



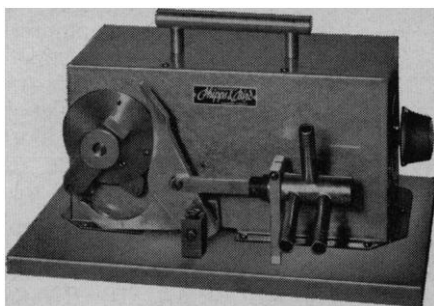
- High sensitivity . . . full scale for 0.001 microgram quinine sulphate
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Write for Bulletin No. 392 to:

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Also: pH Meters, Colorimeters, Densitometers

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For use with compressed air in controlling artificial respiration.

Control of one knob facilitates respiration rates of 15 to 50 per minute. Time ratio may be set to any value between 1:4 to 4:1.

Removes for easy cleaning and sterilizing.

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Manufacturers & Distributors of Scientific Equipment  
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SLIDE LABELING**



Fast—convenient and accurate! Simply pull tab and label "pops" out. The pressure-sensitive labels are dispensed one at a time and are available in two sizes; standard and

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Write for detailed information and the name of your nearest TIME distributor. Dept. RM

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Replies to blind ads should be addressed as follows:

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Science  
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For taxonomic research on Symphyta and Apoidea and on Acari (Competition Number 60-565).

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For research on statistical methods and design related to experiments in various fields of biology (Competition Number 60-560).

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Quote Competition Number as indicated.

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Mature investigator needed to head biological group concerned particularly with steroidal research leading to possible new therapeutic agents. Unusual opportunity in a modern industrial laboratory in academic environment. Research experience in endocrine field required. Supervisory experience desirable but not necessary. Write sending personal résumé, including bibliography of publications, to:

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Shipped to all points via Air Express  
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**Miniature, All-Purpose CALCULATOR**

A precision instrument that will do all the calculations of larger expensive desk models. Weighs only 8 oz. Fits Hand. Fast, accurate, sturdy... completely portable. Ideal for all on-the-spot calculating. Fully guaranteed. Write for free literature, prices, name of nearest dealer.  
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Proceedings of two conferences by  
NAS-NRC Committee on Photobiology  
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AND RELATED PHENOMENA  
IN PLANTS AND ANIMALS**

922 pp., 256 illus., 1959 \$14.75  
\$12.50 cash orders from AAAS members

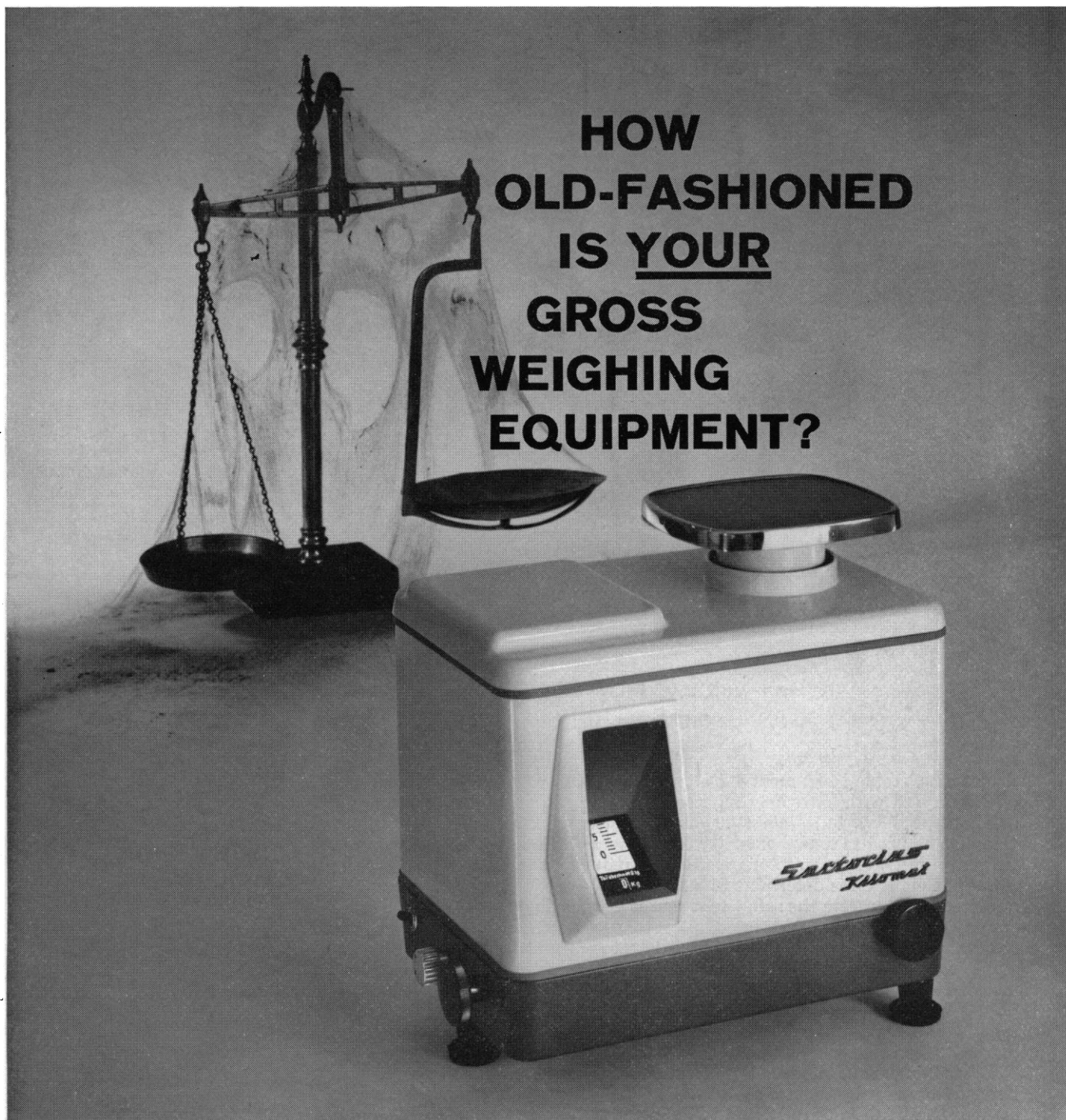
**THE LUMINESCENCE  
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**AAAS**

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KILOMAT I	110g	100g	0.02g	900g	1000g	8 sec.
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*a new concept in Fluorometer-Nephelometer design . . .*

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**Full Scale Reading  
(100 Divisions)  
with only  
5 PARTS per BILLION  
Quinine Sulphate**



- ▶ **Four-watt u.v. lamp minimizes sample deterioration**
- ▶ **Resolves 0.01 ppm silica when used as a nephelometer**

A compact, stable instrument for quantitative fluorescence analysis, simple in operation and with extremely high sensitivity, i.e. 5 parts per billion quinine sulphate produces full scale (100 divisions) change on most sensitive range. Can also be used as a nephelometer to resolve as little as 0.01 APHA standard turbidity unit. Range selector provides for reducing the sensitivity if required.

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Takes 2-inch square filters for operation at 405, 436 or 546 mμ with 4-watt lamp and various secondary filters. Requires 2.5 to 4 ml samples in either standard test tubes, 10 to 12 mm inside diameter, or in 10 mm square cuvettes.

Adequate 3600Å u.v. excitation is obtained with only 4-watt lamp output, thereby minimizing sample deterioration by light or heat. Interchangeable lamp (254 mμ), quartz cuvettes and special filters are available for 2537Å operation.

**Fluorometer, Turner**, complete outfit with general purpose accessories for 3600Å operation, consisting of set of five matched cuvettes 75 x 12 mm, primary filter 360 mμ, secondary filter 415 mμ, spare 4-watt ultraviolet lamp, and service manual; for 115 volts, 50 or 60 cycles, a.c. . . . . **985.00**

**Square Cuvette**, of Pyrex brand glass, precision bore, 75 x 10 mm; only accessory required for nephelometry . . . . . **10.00**

**Uranium Pellet Door**, interchangeable with standard door. Standard fusion pellets drop into place and can be ejected by a spring device. . . . . **45.00**

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