



### Small Package Temperature Control

Trans Temp containers are designed to provide protection of their contents from extremes of temperature during transport. The containers are made of sturdy insulating polyurethane in various sizes and dimensions. Within recesses in the container are packaged temperature controllants. The controller operates by phase changes which either store or release heat. Containers are also available in which the polyurethane body is surrounded by a fiber drum for greater durability. Royal Industries Engineered Products Division. Circle No. 288 on Readers' Service Card.

### Cytofluorograph

The model 4800A Cytofluorograf (Fig. 1) is a cell counter-differentiator with the added feature of immunofluorescence capability. A liquid suspension of cells stained with fluorochromes is introduced and the cells may be analyzed at rates up to 100,000 per minute. The cells may be counted, sized, differ-

entiated as to viability, and, in addition, differentiated on the basis of fluorescence properties. The cells are made to pass singly through an aperture where they are illuminated by a laser. Light scatter and fluorescence are measured. Bio/Physics Systems. Circle No. 287 on Readers' Service Card.

### Specific Ion Meter

The model 407A Ionalyzer utilizes specific ion, gas-sensing, redox, and pH electrodes. It has scales for pH, direct reading of ion concentration and for performing titrations. The scale plate is mirrored to reduce parallax errors and has color-coded scales to match function switch positions. Scales include  $\pm 700$  millivolt, known addition-known subtraction, 0-14 pH unit (readable to 0.04 unit), and direct-reading 2-decade log. The 407A accommodates electrodes of resistance up to 1000 megohms, low-drift amplifier circuitry, and tautband needle suspension. Orion Research Incorporated. Circle No. 291 on Readers' Service Card.



Fig. 1. The model 4800A Cytofluorograf measures light scattering and fluorescence. Cells may be studied with fluorescent techniques such as the Schiff procedure for DNA, with vital stains such as acridine orange for viability, or with fluorescein compounds to characterize cellular enzymes in addition to automatic sizing and counting.

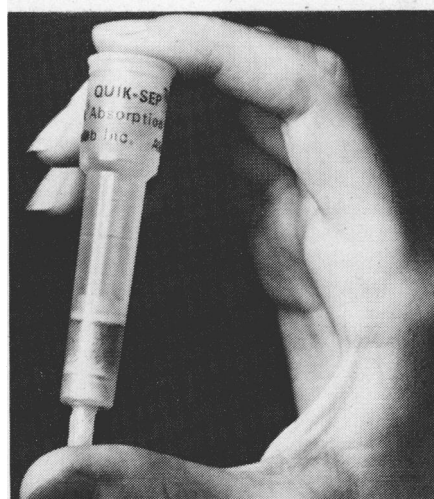


Fig. 2. Quik-Sep column for radioimmunoassay yields standard curves essentially identical to those obtained by the two-step charcoal separation procedure which Quik-Sep replaces.

### Controls for Urine and Serum

The Hyland control for urine toxicology contains 13 drugs and five heavy metals. The control for serum toxicology contains 17 drugs and four heavy metals. Both are freeze-dried and when stoppered and stored between 2° and 8°C the reconstituted material will remain stable for 7 days. Constituent values (unassayed) may be used as a guide to test procedure sensitivity. The control for urine toxicology is packaged in three 25-ml containers, that for serum toxicology in five 10-milliliter containers. Hyland Division, Traveler Laboratories, Incorporated. Circle No. 289 on Readers' Service Card.

### Radioimmunoassay Absorption Columns

Quik-Sep columns (Fig. 2) replace the two-step charcoal incubation plus charcoal separation procedure with no loss of accuracy. The columns consist of a quantity of absorbent deposited within a column of filter medium. Because the filter medium determines the flow rate, the contact time of the absorption agent with the unbound antigen in the assay tube mixture is controlled. Isolab Incorporated. Circle No. 285 on Readers' Service Card.

### Hemagglutination-Inhibition Test for Methadone

The HI-M test for methadone can detect as little as 0.01 microgram of methadone per milliliter of urine up to 96 hours after ingestion. The methadone antiserum has been lyophilized and the technician may determine test sensitivity by varying the amount of diluent for reconstitution. Test materials include red blood cells sensitized to methadone (stabilized), NRS 100 diluent for cells (preserved), methadone antiserum (lyophilized), reagent diluent (preserved), and a methadone standard (1 microgram per milliliter, preserved). R.D. Products, Incorporated. Circle No. 296 on Readers' Service Card.

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# Science

## Cytofluorograph

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