FOUR REASONS WHY THIS IS THE BEST ULTRACENTRIFUGE YOU CAN BUY.

Touch-Programmable Operation
With full microprocessor control, continuously monitored operation, digital readouts, built-in memory for delayed starting, and Memory-Pak™ modules, the L8M is the easiest-to-operate ultracentrifuge, ever.

Quiet, Energy-Efficient Power
The L8M's advanced Ultra-Smooth direct induction drive is vacuum-encased with no high-speed vacuum seal to wear, no brushes to replace. Now even more powerful, the L8M accelerates rotors up to 30% faster than ever before.

Ultimate Versatility
You get $\omega^2$ computation, selectable accel/decel rates, the widest selection of rotors and tubes including exclusive Quick-Seal® Tubes, plus accessories for analytical capabilities, high temperature work, and more. The L8M can even be controlled by your personal or lab computer.

Reliable Performance
With user and service diagnostics, comprehensive safety systems, and a proven design based on 35 years of experience, the L8M is the most reliable, best-performing ultracentrifuge ever made.

Add our unmatched service and applications support, and it's no wonder that the L8M is the standard of performance, quality and value, worldwide. For more information contact your local Beckman Representative or write: Beckman Instruments, Inc., Spinco Division, 1050 Page Mill Road, Palo Alto, California 94304.
Bio-Rad’s new MAPSTM Preparative System 100.

It isn’t quite correct to call it a machine. But the System 100 does churn out a lot of work in a short time. Specifically, it can purify up to 0.5 grams of monoclonal antibody in under 90 minutes. That adds up to several grams per day.

The MAPS Preparative System 100 also offers these indispensable advantages:

* Universal technique, allowing separation of all antibody classes, including IgG, IgM and IgA!
* Quantitative recovery of antibody activity at high levels of purity.
* Easy scale-up, using small amounts of sample for preparative methods development.
* Automated system for easy operation and high reproducibility.
* Non-pyrogenic system for therapeutic applications requiring high purity antibody.

In addition, the System 100 comes complete with all materials needed for methods development.

We think it’s the ideal system for the large scale purification of monoclonals. But find out for yourself. Call 800-4-BIORAD or contact:

BIO-RAD
2200 Wright Avenue
Richmond, CA 94804
Telephone (415) 234-4130

See us at FASEB, Booth #2220.
The feasibility of turning sea water into electricity is being studied in fusion energy experiments at Kyoto University in Japan. The studies involve a Hughes Aircraft Company gyrotron, a microwave tube that uses a spiraling stream of electrons to produce extremely high power microwave frequencies. Fusion energy holds tremendous potential because its source of fuel (hydrogen) can be extracted from sea water. It could produce large amounts of power with little or no radioactive waste and no threat of meltdown or explosion. In fusion energy research, the gyrotron's high-power radio waves heat hydrogen particles (plasma) to temperatures of tens of millions of degrees. These particles fuse under pressure, causing a thermonuclear reaction that provides energy for driving steam turbines.

A third communications satellite is being built for Indonesia as a replacement for one rescued from an errant orbit last November by NASA's space shuttle. Palapa B-3, set for launch in 1986, is the third in a follow-on series of spacecraft designed and built by Hughes for Perumtel, Indonesia's government-owned telecommunications agency. The Palapa B model has more than twice the capacity of Palapa A, which in 1972 unified the world's largest archipelago electronically. It can carry 1,000 voice circuits or a color television transmission in each of its 24 transponders.

Single-seat military aircraft will be able to fly low-altitude attack missions at night with a system now undergoing evaluation by the U.S. Air Force. The Low Altitude Navigation and Targeting Infrared System for Night (LANTIRN) permits attacks at night and in low-visibility weather while relieving a pilot of many manual targeting functions. Elements include infrared sensors, an automatic multimode tracker, a laser designator/ranger, and a terrain-following navigation system. These components are mounted in two pods installed under the aircraft. Hughes, as subcontractor to Martin Marietta, has supplied five modified Imaging Infrared Maverick air-to-surface missiles along with launchers and a missile boresight correlator (the device which automatically hands off targets from the pod sensor to the missile). LANTIRN is designed for the F-16, F-15, and A-10 aircraft.

Swedish JAS-39 pilots will have better views from their cockpits, thanks to a wide-field-of-view head-up display (HUD) that incorporates diffraction optics technology. The display saves pilots from looking down into the cockpit to read instruments by superimposing data on a clear plate mounted at the pilot's eye level. Compared with conventional displays, the new HUD is clearer and eliminates bulky support structures. Its wide field of view can be used with infrared or low-light-level TV imagery so pilots can fly high-speed low-altitude missions at night. Hughes produces the HUD using a proprietary process involving holographic techniques and lasers. Sweden is the first country to award a production contract for a HUD that uses diffraction optics.

Career growth opportunities exist at Hughes Support Systems for a variety of engineers qualified by degree or extensive work experience. They include systems engineers, radar engineers, and software and hardware design engineers for major simulation and test equipment programs. Also, field engineering posts throughout the U.S. offer travel, autonomy, and responsibility for the life cycle of Hughes electronics systems. Please send your resume to Lowell Anderson, Professional Employment, Dept. S2, Hughes Aircraft Company, P.O. Box 9399, Long Beach, CA 90801-0463. Equal opportunity employer. U.S. citizenship required.
NEW U.L. LISTED
EPPENDORF® 5414
MICRO CENTRIFUGE WITH
MOMENTARY SWITCH
AND TIMING LIGHT.

This is the centrifuge that lets you spin a sample without spinning the timer dial. For spins of 60 seconds or less, simply hold down the Momentary Switch as long as necessary; a lighted diode flashes at 1-second intervals to let you time the spin. Longer centrifuging is controlled by the built-in 15- or 30-minute timer with automatic shut-off.

More convenient and more efficient than previous models, the 5414 reaches maximum speed in just 5 seconds, regardless of load. RCF has been increased to 15,600xG at 15,000 rpm for faster separations. The angled rotor head accepts twelve standard 1.5 ml Eppendorf Test Tubes, or 900 μl, 400 μl and 250 μl tubes using adapters. (For larger loads, Model 5413 spins up to forty tubes horizontally in four vertical carriers holding up to ten 1.5 ml, 400 μl or 250 μl tubes each. Maximum RCF is 8,800xG at 11,500 rpm.) On both models, a safety lid lock prevents operation with the top open.

For literature, write: Eppendorf Division, Brinkmann Instruments, Inc., Subsidiary of Sybron Corporation, Cantiague Road, Westbury, NY 11590; or call 516/334-7500. In Canada: Brinkmann Instruments (Canada), Ltd.

To spin for minutes, set the timer.

To spin for seconds, touch the button.
The new Gallard-Schlesinger catalog for biochemical applications

Gallard-Schlesinger's new catalog is available free to biochemists, molecular biologists, immunologists and microbiologists. Over 150 of the company's latest and most requested laboratory and research chemicals are indexed and grouped according to category for easy reference.

The catalog is specifically designed to meet your specialized needs, and is yours for the asking. Write or call:

Gallard-Schlesinger Chemical Mfg. Corp.,
584 Mineola Avenue,
Carle Place,
New York 11514,
(516)-333-5600.

Circle No. 11 on Readers' Service Card

Fast and easy for:
- Particulate Separations
- Cell Sorting Applications
  - IgG Complexes
- Double Antibody Assays
- Monoclonal Screening
  - Serum Stripping
- Affinity Chromatography

Separations are:
- Rapid
- Convenient
- Safe, No Containment Required
- No Centrifugation, No Aerosols
- No Filters, No Fouling

BioMag available as particles covalently coupled to:
- Protein A
- Anti-Rabbit IgG
- Anti-Mouse IgG
- Charcoal
- Anti-Fluorescein
- Anti-Human IgM

Magnetic Separator Racks for Microtiter Plates or Test Tubes Available

For further information call or write:

Advanced Magnetics Inc.
45 Spinelli Place • Cambridge, Massachusetts 02138
Telephone (617) 497-2070
Telex: 95-1417 TX Network BSN Ref: BIOC

Visit us at FASEB Booth #3410

Circle No. 130 on Readers' Service Card
PRINT BIBLIOGRAPHIES IN THE STYLE OF ANY JOURNAL WITH YOUR MICROCOMPUTER AND Martz-BIBLIOFILE™

Compatible with most text editors (Wordstar ["Micropro") is fine). Martz-BIBLIOFILE™ remembers which journals you have used, and lists them by name on a menu. Martz-BIBLIOFILE™ can sequentially

Renumber Citations in Your Manuscript,
then get the cited references from your master database, and put the bibliography for your manuscript in a standard ASCII file for printing. Also supports author/year citation.

Alphabetize Any Bibliography or Your Entire Collection!

Search with And-Or-Not Logic
on any fields (author, year, title, journal/book, volume/pages, or keywords).

Include Personalized Keywords
up to 500 characters (the limit per field; a reference can total up to 2000 characters). A $5" disk will hold 12,000 references; a $5.5" disk, 4000. Large collections can be spread over several floppy disks.

Martz-BIBLIOFILE™ costs $250 and is available for the IBM-PC (or any MS-DOS computer), and for most 64K CP/M-80 Vers. 2.2 (* Digital Research) micro-computers, including Apple ][ (with CP/M card only), DEC Rainbow, Epson QX-10, Heath/Zenith, Kaypro, Northstar, Osborne, Superbrain, Televideo, Xerox 820, Zorba, and many others. Manual only $50, with demonstration disk (IBM-PC/MS-DOS only) $50.

Martz Software Power Tools, Inc. 48 Hunter's Hill Circle, Amherst, MA 01002.

For detailed brochure, call 413-256-0751, M/C, Visa, PO.


Circle No. 41 on Readers' Service Card

**Covaspheres. The Choice for fluorescence experiments you can see.**

Do experiments in fluorescence microscopy or other cell labeling techniques leave you in the dark? Find out how researchers are using Covaspheres® polystyrene particles to get proven performance in cell labeling, staining, agglutination, cytometry and other applications.

A brighter idea
Covaspheres® are biomedical problem-solvers, available in a variety of sizes (0.3, 0.5, 0.7, & 1.0 micron diameters), plain or with a choice of dyes. Size uniformity is monitored by electron microscopy. The manufacturing process incorporates dyes directly into the particles to eliminate quenching, leaching or fading.

Perform multiple fluorescence experiments on the same batch of living cells

Improved fluorescent labels — chosen for widely separated excitation wavelengths and clean, easy-to-distinguish emission peaks — allow these particles to produce staining 100 to 1000 times more intense than conventional methods.

For references and more information on Covaspheres® particles and reagents, please call or write today.

**Covaspheres Technology Corporation**
3941 Research Park Drive, Box 1868
Ann Arbor, Michigan 48106
(313) 769-5377

Circle No. 53 on Readers' Service Card

**HELLMA**

**D² LAMPS**

From Original Hanau.

**The new Concept**

UV light sources for all major spectrophotometers and detectors. Also inquire about our large variety of stock and custom cells.

For over 20 years...
**HELLMA—Quality you can trust.**

Box 544, Borough Hall Station, Jamaica, N.Y. 11424
Telephone (718) 544-9534 or (718) 544-9166.

Circle No. 53 on Readers' Service Card

19 APRIL 1985

Circle No. 143 on Readers' Service Card

359
UNIVERSIDAD AUTONOMA DE CD. JUAREZ
ESCUELA DE MEDICINA
ADVANCED STANDING ADMISSION PROGRAM.

The University of Ciudad Juarez, School of Medicine has established a procedure of individuals possessing certain doctoral degree, whereby these individuals may be considered of admission into the medical curriculum at an advanced level as students in the regular five-year program.

It is possible for successful students to complete the core clinical courses and clinical training for the M.D. degree within 36 months.

To be considered for admission an individual must possess credentials in one of the following categories:

1. - A Ph.D., in a basic medical science.
2. - A doctoral degree from certain professional school of Dentistry or Veterinary Medicine where the basic sciences is equivalent in content to that of the Medical School.
3. - A Ph.D., in a (Non-Basic) science are where the transcript can demonstrate appropriate scientific training.

Individuals with a professional degree in Chiropractic Medicine, Optometry, Osteopathy, or Stomatology are not eligible for advanced standing.

Applications must be completed by April 30 1985 prior beginning study in Cd. Juarez.

DIRECT INQUIRES BY MAIL TO:
ADMISSION COMMITTEE
INSTITUTO DE CIENCIAS ICB
UNIVERSIDAD AUTONOMA DE CIUDAD JUAREZ
APDO. POSTAL 1729-D.
CD. JUAREZ. CHIH. MEX.

UNIVERSIDAD AUTONOMA DE CD. JUAREZ
ESCUELA DE MEDICINA
ADVANCED STANDING ADMISSION PROGRAM.

The University of Ciudad Juarez, School of Medicine has established a procedure of individuals possessing certain doctoral degree, whereby these individuals may be considered of admission into the medical curriculum at an advanced level as students in the regular five-year program.

It is possible for successful students to complete the core clinical courses and clinical training for the M.D. degree within 36 months.

To be considered for admission an individual must possess credentials in one of the following categories:

1. - A Ph.D., in a basic medical science.
2. - A doctoral degree from certain professional school of Dentistry or Veterinary Medicine where the basic sciences is equivalent in content to that of the Medical School.
3. - A Ph.D., in a (Non-Basic) science are where the transcript can demonstrate appropriate scientific training.

Individuals with a professional degree in Chiropractic Medicine, Optometry, Osteopathy, or Stomatology are not eligible for advanced standing.

Applications must be completed by April 30 1985 prior beginning study in Cd. Juarez.

DIRECT INQUIRES BY MAIL TO:
ADMISSION COMMITTEE
INSTITUTO DE CIENCIAS ICB
UNIVERSIDAD AUTONOMA DE CIUDAD JUAREZ
APDO. POSTAL 1729-D.
CD. JUAREZ. CHIH. MEX.

Don’t miss the 1985 AAAS Annual Meeting & Exhibit
Science and Engineering: Diversity and Convergence
26-31 May 1985
Los Angeles
For further information, see the 8 March or 5 April issues of Science or call (202) 842-9530.