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Steroids-H3 for use in competitive protein binding

First on the market with tritiated oestradiol of ultra-high specific activity, The Radiochemical Centre has now extended this product line with tritiated cortisol and tritiated testosterone at specific activities of the order of 100Ci/mmol.

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Further details of these and other tritiated steroids at very high specific activities will be found in our 1972/73 Radiochemicals catalogue.

Prices are most competitive—and, as with every purchase from The Radiochemical Centre, there is the added value for money of assistance and advice from our technical staff.

An authoritative monograph 'Determination of steroid hormones' is published by The Radiochemical Centre. Copies are available free on request.

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New Whatman Multi-system - the cleverest column in chromatography!

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Whatman®
IEC adds a new performance dimension to its low-speed PR-6000 and PR-J Refrigerated Centrifuges with the Continuous Flow Zonal Rotor. This totally new and unique rotor will process such particles as mitochondria, nuclei, protozoa, unicelled algae, chloroplasts, bacteria, yeast, spores, blood cells, polyhedral insect viruses, and latex. Applications range from medical and industrial research to probings into the ecological balance.

The Continuous Flow Zonal Rotor utilizes density gradient techniques to concentrate and purify large volumes of dilute particle suspensions (100-plus litres of 1-micron diameter particles in one 8-hour day).

Suspension of the concentrate in a density gradient provides isopycnic zones free of any impurities (gaussian distributions with a standard deviation of 5 ml in a banding zone have been obtained). It also provides an ideal environment for fragile biological organelles — phytoplankton, for example — allowing such life processes as respiration and photosynthesis to remain unimpaired. (Previous methods requiring contact with filters and rotor walls often destroyed the delicate organelles.) It even minimizes the damage from organelle-to-organelle contact, as occurs in “packed” concentrates.

The new rotor will also operate in the conventional continuous flow mode without a density gradient, providing up to 550 ml of packed particles of all densities.

Or choose a limited rate separation, or a differential separation scheme. Particles are captured or passed through a rotor depending upon their sedimentation coefficient; decrease flow rate through the rotor or increase rotor speed, and particles of lower sedimentation rate are captured.

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BAIRD & TATLOCK present the IEC Continuous Flow Zonal Rotor

Cat No. 800/1090/00
Thin-layer gel filtration with the Pharmacia TLG-apparatus for rapid separations with microquantities.

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- **TWO PLATE SIZES**
  Two chromatographic plates 20×20 cm, with one or different gel types, or one 20×40 cm can be run.

- **SAMPLE MULTIPLICITY**
  Up to 30 samples (on two plates) can be run simultaneously.

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  Angles from 10°–45° with 5° intervals for descending development at different speeds.

- **NEW CHAMBER DESIGN**
  Special TLG-chamber keeps conditions constant during equilibration, sample application and development.

- **EASY SAMPLE APPLICATION**
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- **VARIABLE LAYER THICKNESS**
  TLG-spreader, included with each TLG-apparatus, enables layers 0.4, 0.6, 0.8, 1.0 mm to be made simply and quickly.

- **SEPHADEX SUPERFINE**
  Special Superfine grades of Sephadex G-50 to G-200 available.

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  Sample volumes in 1–10 µl range may contain as little as 10 µg substance.

- **PERMANENT RECORDS**
  Permanent records of results obtained simply by paper replica technique.

TLG-apparatus, Sephadex® G-types and detailed handbook of TLG technique are available from our local representative or directly from Pharmacia Fine Chemicals, Uppsala, Sweden.
The new IEC B-20A High Speed Refrigerated Centrifuge is a versatile, general purpose research instrument designed for broad applications in medical, industrial and research laboratories. It offers the medical and research community large volume and high resolution capabilities at speeds from 1,000 to 20,000 rpm, and has a complete selection of accessories designed to meet the most exacting requirements of speed, gravity and volume. Six heads, including two swinging buckets, zonal rotors, most ultracentrifuge angle rotors, and a broad selection of accessories make the IEC B-20A ideal for separation of whole cells, nuclei, mitochondria, lysosomes and other cellular organelles. Gravities to 45,500 xg. Maximum volume is 1,500 ml (6x250).

Applications: Differential separation of mitochondria, lysosomes, other cellular organelles and membranes • Centrifugal filtrations • Precipitate proteins • Clarification of particulate suspensions • Concentration, purification and separation of micro particles from ribosomes to whole cells • Latex particle size and density distribution studies • Density gradient studies of small volume preparations using horizontal heads • Macromolecular preparations • Isopycnically banding or pelleting of subcellular particles, bacterial and whole cells.

Zonal Centrifugation: IEC's line of zonal rotors broaden the B-20A’s capabilities and facilitate entirely new standards in techniques, precision and overall centrifuge efficiency previously impossible with a 20,000 rpm machine. With zonal rotors, the B-20A can process sample volumes from 1 ml to over 100 ml using density gradient techniques, and up to 800 ml in many isopycnic applications.

Some examples: The B-29 zonal rotor can process up to 2,000 mg of ribosomes in a single run • Separation of microsomes, lysosomes, mitochondria and nuclei can be obtained in one run with the smaller volume B-30 rotor • The Z-15 rotor, with its larger initial radius, increases efficiency nearly 300% and allows sub-cellular particle separations for most cell systems to be completed in less than four hours.

The B-20A is backed by IEC's more than 70 years of experience in the centrifuge field and years of use in hundreds of laboratories around the world. If you want to know more about this versatile 20,000 rpm centrifuge that does almost anything write to:

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