

WHAT'S NEW

This listing is intended only as a service to the reader by calling his attention to items of possible interest. No endorsement should be inferred. Item numbers correspond to numbers on the READER SERVICE CARD.



32. The availability of **pneumatic cylinder operators** for remote actuation of "Flo-Mite" miniaturized ball valves has been disclosed by Hoke, Incorporated, Cresskill, New Jersey. Designed for air-to-open/air-to-close service using as little as 40 lbs/in.²g air supply, this operator will actuate ball valves handling process fluids at pressures to 5000 lbs/in.²g. The operator consists of a brass cylinder tube, aluminum head and Type-18-8 stainless steel rod.

33. Also available from Hoke, Incorporated is a new **miniature test valve** which features a hollow stem permitting an operator to connect calibration equipment directly to the open test port, eliminating connections and the need for a separate test tee. The valve is constructed of Type-316 stainless steel. An O-ring, located below the stem threads seals the valve against pressures up to 5000 lbs/in.² and temperatures of -40° to 160°F.

34. A new aerosol product from Crown Industrial Products Co., Hebron, Illinois is a **dry molybdenum disulfide lubricant** containing no oils or moisture-based diluents. It will withstand operating pressures up to 100 000 lb/in.² with no appreciable breakdown or loss of lubricating properties, providing excellent lubrication from -100° to approximately 700°F, according to the manufacturer.

35. The MARK 10, the newest instrument from Brush Instruments, Cleveland, Ohio, is a completely solid-state unit, demonstrating the latest techniques in a **potentiometric recorder**, including: full-scale ranges of 5 mV to 200 V in 15 steps; zero position to within 0.1%; zero suppression up to ten full scales; electrical-input signal filtering; 140-db common mode rejection; one-megohm input impedance, floated, guarded; and ten chart speeds.

36. Nuclear Supplies, Incorporated, Encino, California announces the availability of their new **short form catalog**, describing their line of transistorized, current-mode operated modules, systems, instruments and accessories. The company is the exclusive US distributor of nuclear products manufactured by Kobe Kogyo Corporation of Japan.

37. Controls for Radiation, Inc., Cambridge, Massachusetts, presents a new **personnel radiation dosimeter**, which makes use of the thermoluminescent properties of lithium fluoride, encapsulated in a re-useable form. The dosimeter may be worn in place of present-day film badges. An associated readout instrument evaluates the total dose of exposure, presenting digital data directly in visual and/or printed form. Readout takes only 15 s per dosimeter, returning it to zero dose for immediate reuse.


Dose range is from 10 m R to over 10,000 R with a precision of -5% over most of the range. It has a broad spectrum energy independence; sensitivity to betas, low and high-energy x-rays, gammas, and radiation from accelerators; and is dose rate independent to ± 5% up to 3 x 10¹¹ R/h. Less than 5% of the absorbed dose is lost over a period of a year at room temperature.

38. The University II Series Model-140 **Scaler-Timer** by Baird-Atomic, Inc., Cambridge, Massachusetts, is an all-transistorized six-decade preset scaler and five-decade preset timer with visual display. It has provisions for printout of count and time as well as automatic background subtract, preset count, and preset time override and auto-recycle and can be used with most conventional linear amplifiers and pulse-height analyzers or directly with well counters or scintillation probes.

39. The Electron Beam Corporation, Lynn, Massachusetts, offers a series of three **electron beam evaporators** with unique high-temperature gun design permitting fast and easy filament replacement requiring no gun cooling. Power supply ratings are 3, 6, and 10 kW. at 100,200, and 330 mA, respectively. Vacuum chamber is the same size for all three, 24x24x30 in. Ultimate vacuum is 10⁻⁶ torr, with 2x10⁻⁵ torr achieved in ten minutes or less on the smallest machine and in five minutes or less on the two larger models.

40. A relatively inexpensive **electric stopwatch** is offered by Fisher Scientific Co., Pittsburgh, Pennsylvania. Available in two models, one of which reads elapsed time in seconds and tenths of seconds, the other in minutes and hundredths of minutes, the timers are accurate to 10²Ts, with ranges of 0 to 10 000 s or 0 to 1000 min, respectively.

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41. The United Kingdom Atomic Energy Authority is interested in reaching a licensing agreement for the manufacture of a **plasma welding device** for forming junctions on small thermocouples in sizes down to 0.25 mm diam. The device, developed in Britain for the UKAEA, consists of a small glass cylinder sealed by removable metal end pieces. Several thermocouples at a time are placed in the cylinder to be welded in sequence. After loading with thermocouples, the cylinder is evacuated and filled with argon. A unique arc control system permits the welding of very fine wires.

42. Packard Instrument Company, Inc., Downers Grove, Illinois, recently released their **Catalog 65** describing their line of multichannel and mutliparameter analyzers and related accessory instruments.

43. A comprehensive 52-page **survey of austenitic stainless steels** entitled "Type 316 For Elevated-Temperature Power-Plant Applications" has just been published by Climax Molybdenum Company, New York, New York. The survey consists of a comparison of certain significant engineering properties of Types 304, 316, 321, and 347 for elevated-temperature applications.

44. An electronic averaging technique that extracts weak signals from backgrounds of nonfilterable, random electrical noise is described in a new 16-page booklet now available from Nuclear Data, Inc., Palatine, Illinois. The bulletin explains the operation of the firm's new **signal-averaging digital computer**, the ND-800 Enhancetron 1024, and its applications in various areas of data acquisition and analysis. The Enhancetron's patented digitizing process is said to be less complex and more accurate than other methods of signal averaging.

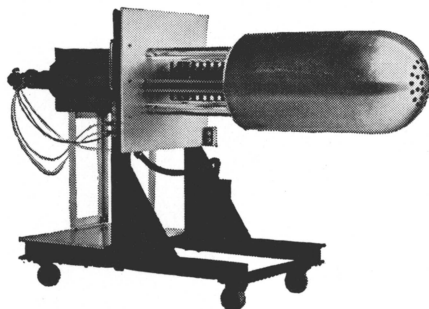
45. High radio-frequency (RF) voltage **piston trimmer capacitor**, GQ 11207, available from Roanwell Corporation, New York, offers considerable reduction in size, while providing high RF breakdown voltage (RF voltage: 5000 peak at 30 Mc superimposed on 6000 Vdc at 25°C and 50% relative humidity). Current capacity: 5A maximum. Capacity range: 1.0 to 10.0 p F. Operating temperature: -55° to +150°C.

46. **Radioisotope safety rules** prescribed by the Lawrence Radiation Laboratory have been compiled in a manual that is now available. According to the Laboratory, compliance of its personnel with the principles set down in the manual has permitted LRL to have a unique and successful record of safety.

47. A new series of **compact power supplies** is announced by Deltron,

Inc., Philadelphia, Pa. The high-precision, silicon power supplies provide continuous control of voltage or current with automatic electronic crossover to either mode of operation and handle high power by means of a fast-response, nondissipative preregulator. All units provide automatic and remote sensing, automatic series and parallel operation, master-slave and remote programability, and 0.01% regulation.

Three target innovations allow sustained neutron generator operation.



Texas Nuclear neutron generators provide continuous output of up to 2.5×10^{11} n/sec.

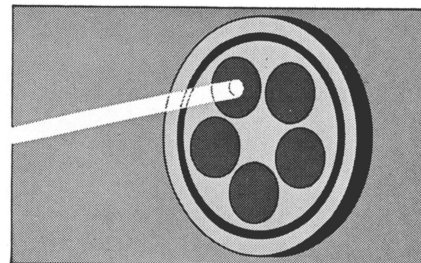
Texas Nuclear neutron-generating equipment using the T(d,n) reaction has proved its value in the research laboratory in areas ranging from activation analysis to nuclear engineering. These systems have earned a reputation for quality, flexibility, and reliability.

And now, you can get better utilization of your equipment. We have developed three new target assemblies that alleviate the problem of generator down-time caused by frequent target replacement.

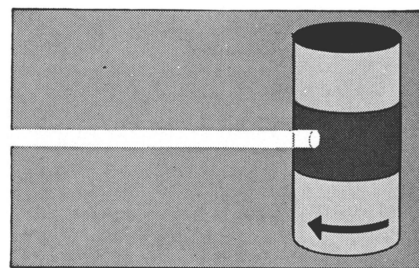
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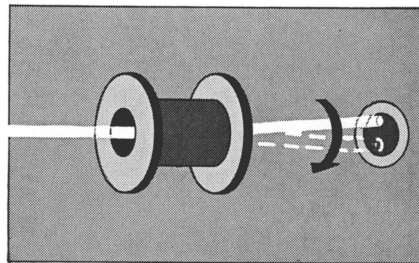
Scientists and engineers interested in challenging career opportunities are invited to contact our personnel director.



Five targets are held by the Model 9525 Multiple Target Assembly. When one target is depleted, you can rotate the next one into position without vacuum interruption.



The target of the Model 9523 Rotating Target Assembly is a band on the surface of a cylinder. Continuous rotation of this cylinder during operation multiplies effective target area. This results in longer periods of sustained operation.



The Model 9527 Electrostatic Sweeping Mechanism automatically disperses the ion beam uniformly over the target surface in a circular sweep pattern. This eliminates "hot spots" and can extend target life by a factor of three.



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