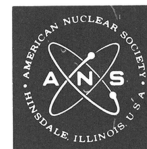


WHAT'S NEW

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.



36. The Kay-Ray Division of Kay Electric Company, Palatine, Illinois, announces the availability of the Kay-Ray **Liquid or Slurry Density Gauge**. This gauge measures the specific gravity of a liquid, percent solids in a slurry, or other density related variables continuously "on stream" to an advertised accuracy of 0.0001 SGU. Kay-Ray claims that the noncontacting radiation principle used in the gauge permits an independent measure of process temperature, pressure, flow, or of the abrasiveness or corrosiveness of the product.

37. Ampere Electronic Corp., Nuclear Products Department, Hicksville, L.I., New York, announces the XP1000 family of **photomultipliers**, a group of 10-stage, 2-in. photomultipliers with standard 14-pin bases that, they say, are designed to be so uniform in quality that the user enjoys all the advantages of preselection without paying the price. The tubes are available in production quantities and are direct replacements for many popular types. The Corporation states that new rugged standard 14-pin bases used to insure reliability and a much lower dc dark current are constructed of a newly developed low-leakage material. A special new inconel spring-type dynode support prevents ion feed-

back. Operating characteristics of a high order are claimed.

38. A new catalog featuring a wide variety of **shielding products** manufactured by the Ameray Corporation, Dover, N.J. describes x-ray protective materials, nuclear handling products, and radio frequency shielded rooms. It includes such products as lead insulated lath and panels, lead core blocks, lead core doors, control windows, and other items for x-ray work, and hot cells, tongs, concrete shielding doors, fume hoods, glove boxes, lead bricks and lead-glass bricks, portable partitions, shielded containers, electric door operators, and transfer wheels, among others.

39. A new 1966-67 catalog from Keithley Instruments, Cleveland, Ohio, gives complete specifications and descriptions for all Keithley Instruments, including: dc voltmeters and null detectors; dc picoammeters and current amplifiers; dc voltage amplifiers; regulated high voltage supplies; calibration sources; resistance measuring devices; ac wideband voltmeters; and ac voltage amplifiers. The catalog contains photographs, descriptions, complete specifications, and prices for each instrument, and includes 22 new instruments. It also has definitions, check lists, and applications that should be useful to instrument users.

40. A new series of **bayonet-lock connectors** with shells made of either stainless steel, B 1113, or aluminum that are claimed to meet or exceed the highest reliability standards of all current major aerospace and nuclear programs has been introduced by Physical Sciences Corporation of Arcadia, California. The Corporation's release states that the advanced series will withstand 1×10^{20} nmc² radiation and will meet or exceed all applicable standards for the variety of major manned-space, military, and nuclear-propulsion applications in which these connectors are now utilized. These high-performance connectors are available in a variety of multiple pin configurations. Materials used are stainless steel (303m304) and DUROCK for ultra high reliability applications, Inconel and DUROCK for -320 to +1500° F applications. Aluminum and DUROCK are also available.

41. The Activatron 211 M, available from Technical Measurement Corporation (TMC), New Haven, Connecticut, is a variation of the well-known Activatron 211 **Neutron Generator**. TMC states that, in addition to its ability to produce 14-MeV neutrons at a rate of 2.5×10^{11} n/sec, the Activatron 211 M will produce 15-MeV protons by the $^2\text{H}(^3\text{He},p)^4\text{He}$ reaction at a rate exceeding 5×10^8 Protons/sec. Heavy

gases may be accelerated to energies of 200 keV. Beam currents of approximately 2.0 mA have been obtained for helium, nitrogen, oxygen, neon, and argon. Lower beam currents of krypton and xenon can be produced. An adjustable mechanical leak valve is incorporated in the accelerator; this permits the operator to change gases in two or three minutes. A molecular pump is employed in place of the customary sputter ion pump to accelerate heavy gases. When the Activatron 211M is used as a conventional neutron generator, this pump continually discharges tritium to an outdoor exhaust system. Also, the life of the pump is independent of gas throughput, and TMC expects it to operate for one to two years without maintenance even under a continuous, 24 h/day gas load. The Activatron 211M consists of an accelerator unit, associated high-voltage power supplies, and a desk-type control console. All of the operating features of the Activatron 211, including its high-beam current stability, are preserved in this unit. To form complete systems for neutron activation analysis or pulsed neutron experiments, the Activatron 211M can be furnished with pulsing assemblies, automatic transfer systems, scintillation detectors, multi-channel pulse analyzers, flux monitors, and a variety of readout equipment—all designed and built by TMC.

42. The **FLEXO-RABBIT**, a **pneumatic transfer system** utilizing flexible plastic tubing to transport samples to and from radiation sources, is offered by Reactor Experiments, Inc., Belmont, California. Its uses are in facilities such as: nuclear reactors; particle accelerators; neutron generators; and gamma sources. The manufacturer claims that the special flexible plastic tubing used in the **FLEXO-RABBIT** delivery system endows it with certain unique advantages over fixed installations, e.g., lower cost, adaptability to awkward irradiation spaces, ability to change exposure location, speed of assembly and disassembly, use in more than one facility, portability, and visibility of sample capsule

through tubing. **FLEXO-RABBIT** is said to have been used to irradiate samples in nuclear reactors of various designs including swimming-pool reactors, in cyclotrons and cobalt-60 pools, and with Van de Graaff and Cockcroft-Walton accelerators.

43. **Nuclear beta gages** for measurement and control of sheet materials in process are offered by the Ohmart Corp., Cincinnati, Ohio. A short technical report which may be obtained free describes these gages, the principle of the Ohmart cell for conversion of radiation into an electrical current, radioactive source holders, and beta energy sources. The principle of a new type "Dynamic Scan" profile scanner control is explained.

44. The Isotope Division of the Atomic Energy Establishment, Trombay, Bombay, India, produces a "**Radioactive Products**" catalog of its available radioisotopes. Since 1958, that Establishment has been supplying isotopes to various institutions for medical, educational, industrial, and research uses, producing a variety of isotope preparations for distribution to authorized receivers.

45. A new automatic recording **microdensitometer** that provides simultaneous viewing and scanning is the latest addition to the precision photometric instruments offered by General Aniline & Film Corporation, New York, N.Y. Called the Model 650, this versatile instrument is designed to analyze large volumes of aerial films, motion picture films, radiographic films, spectrographic plates, and other types of samples that require precise measurement of density and distance.

46. **NUCLEAR-CHICAGO** has newly revised its catalog of **Carbon-14 Labeled Compounds**. The Company claims that the new book features 55 new compounds and more

Nuclear Core Component & Materials Engineering

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