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The ORTEC TIMES Customer Newsletter

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To Our Valued Customers

This global customer newsletter is presented to inform you of new product developments, technical tips, and promotions on ORTEC products. We welcome input from our customers on how to make it more useful. If you have a case study you would like to share, please e-mail it to susie.brockman@ametek.com.

ORTEC HPGe Portal Monitor to be Installed in NM

ORTEC has been awarded a contract by the State of New Mexico to supply a HPGe spectroscopic portal radiation monitor at a New Mexico port of entry to be used in the interdiction of illicit materials. The monitor will serve as a secondary screening device for commercial vehicles entering the United States. The portal monitor is scheduled to be shipped in June and installed in July.

Send Us Your ORTEC Photos and Get a Free Shirt

We need high resolution images of ORTEC products being used in the field and in the laboratory for our marketing brochures and also on our website.

If you can send us a high resolution image and it is published on our website or in a brochure or ad, we will send you an ORTEC polo shirt.

Please send your images to Susie.Brockman@ametek.com with your name and contact information.

NEW! 9310-16 Sixteen Channel Fast Amplifier

ORTEC's 9310-16 Sixteen Channel Fast Amplifier is suitable for arrays of Photomultipliers, Electron Multipliers, and Microchannel Plates that require greater amplitude. The 9310-16 provides 16 channels in a small single width NIM package.

- Rise Time <1.5-ns (for unipolar ≤ ±25 mV inputs).
- DC Coupled to allow high counting rates.
- Two Outputs for each Amplifier allows simultaneous counting and timing.

NEW! Micro-Detective-HX

The Micro-Detective-HX hand-held HPGe nuclide identifier was developed in response to the HPRDS program. This hand-held identifier looks very similar to the Micro-Detective however the software is significantly different. The non-removable handle on the -HX unit includes four color coded LED indicators which signify "threat", "innocent", "suspect" and "system error".
Instead of identifying that a suspect norm may possibly be in the area, the software clearly gives an indicator of threat or innocent to avoid any possible error.

Found nuclides are displayed as alarms and must be acknowledged by the operator.

NEW! 9309-4 Quad Fast Amplifier

The 9309-4 is ideal for Amplifying Fast Analog Signals from Photomultipliers, Electron Multipliers, Photodiodes, and Microchannel Plates.

- Rise Time <1.5-ns (for unipolar ≤±25 mV inputs).
- DC Coupled to allow high counting rates.
- 0 to 10 Adjustable Gain to provide flexible gain requirements.
- Two Outputs for each Amplifier allows simultaneous counting and timing.

NEW! 499 Fast/Slow NIM Logic Converter

The 499 Fast/Slow NIM Logic Converter includes eight channels of Fast NM to TTL and eight channels of TTL to Fast NIM for Multiple Signals.

- Eliminates incorrect logic problems in nuclear counting and fast timing experiments.
- Logic inversion switches change polarity of logic signals.
- 60 MHz operating frequency (NIM to TTL).
- No Duty-Cycle Limitations, can operate continuously.
- <10 ns of Input/Output Delay for quick triggering.

The 499 is a logic converter designed to provide corrected logic type and/or pulse polarity for signals used to trigger events, to provide pulses to be counted, or to time specific events in timing or counting applications for nuclear, optical, chemical, or biological processes.

NEW! 978 Dual Timer

Versatile Dual Timer/Pulse Generator in Single Width NIM

- Two Identical Triggered Pulse Generators in a single wide NIM module
- Manual or Pulse triggered start
- NIM and ECL output width from 50 ns to 10 s
- End marker output
- Functions as a variable width and rate pulser when both sections are cascaded

The ORTEC 978 Dual Timer is a single width NIM module housing two identical flexible triggered pulse generators. It produces NIM and ECL pulses with width ranges from 50 ns to 10 s when triggered. Output pulses are provided in both normal and complementary formats. A pulse end-marker output signal is provided which can be used to re-trigger the timer for repeat mode. The trigger START can be provided either via an external signal or manually via a front panel switch. The veto input can act as an inhibit gate for the start input signal. The coarse adjustment of the output width is provided via a 10-position rotary switch, while the fine adjustment can be performed via a rotary knob. The two timers may be cascaded to form a pulser with both variable width and rate. Overall accuracy is 10% of full scale plus a temperature coefficient of 0.1% per °C.

NEW! GammaVision-32 V6.08
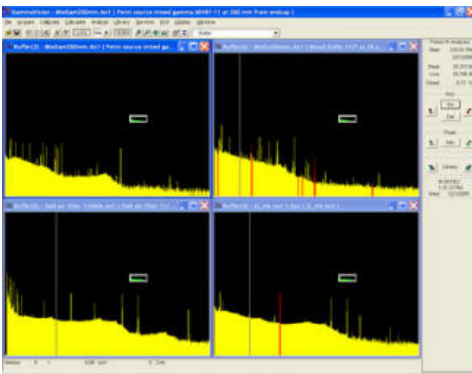
ORTEC GammaVision-32 Gamma Spectrum Analysis Software is a comprehensive, all-in-one package, for the analysis of gamma-ray spectra acquired with HPGe detectors. It represents over 25 years of evolutionary development by ORTEC scientists. Hardware control, advanced MCA display, and a suite of data analysis algorithms are integrated into one complete package. GammaVision-32 is broadly applicable to gamma spectroscopy applications. A high degree of sample automation is possible for busy counting rooms and an array of corrections is provided to deal with sample, nuclide and spectrum-related effects. The methods

employed are compliant with recognized national and international standards such as ANSI/ISO/ASQ 9001:2000, ASME/NQA-1-1989, and ASME/NQA-2a-1990 and ISO/DIS 11929. In addition to automation, interactive analysis tools aid the expert spectroscopist.

Comprehensive Gamma Spectrum Analysis for HPGe detector spectra.

- Integrated control of spectroscopy hardware.
- "Highly Automated" and "Highly Interactive" modes of operation.
- Identification and quantification of nuclide activities by adaptable methods.
- Wide array of spectral correction tools.
- Extensive use of Wizards to simplify setup and calibration.
- Flexible reporting to meet local requirements.
- Results database to facilitate LIMS integration.
- Comprehensive QA features.
- Methods compliant with latest international standards.
- Multi-Language support.
- Support for Microsoft Windows XP and Vista.

NEW! PSC Technicart (Detective Option 17)

A Convenient Solution to Scanning Large Areas or Containers with the ORTEC Detective Series Hand-Held Nuclide Identifiers

- Aids in finding the location of radiation hotspots in containers.
- ID at precise position.
- Easily Maneuverable: large diameter cushion tires.
- Simple to assemble/disassemble.
- Rugged, strong enough to support both Detective instrument and collimator option.
- Extension arm provides up to 85 inches of vertical reach.

HKED Software
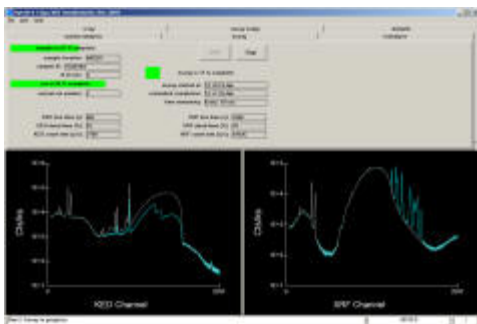
The most recent version LANL HKED software is available from ORTEC either as a turn-key system based on ORTEC HPGe detectors and electronic hardware or as part of an upgrade package, available for all existing HKED systems regardless of the original.

Customs Applications Now Available for the Micro-trans-SPEC

Micro-trans-SPEC is creating a real stir in the applications world. Derived from the micro-Detective HPGe hand held identifier, this instrument is a full featured HPGe in a 6.8 kg package which does not require liquid nitrogen. It has been engineered to withstand real-world environmental conditions of temperature, dust, humidity and shock. We have recently announced it in the format of an instrument for verification of UF6 cylinders by the enrichment meter method. It features specially designed application software and collimator.

Ultra Battery Life Belt for Detective

Weighing only 8.5 lbs., this ultra battery belt can extend the length of time in the field for using one of the Detective hand-held identifiers an additional 5 hours giving the user a total of 7 hours in the field before needing to recharge the battery. To order this item refer to Detective Option 15.

Register Now for Alpha Spectroscopy Course at UNLV

ORTEC is pleased to continue to offer training opportunities to help you improve your laboratory effectiveness. The latest such offering is a 5-day training course in the Fundamentals of Alpha Spectrometry, being run in collaboration with the Health Physics Dept. at The University of Nevada, Las Vegas.

The course will run from August 10 -14 2009 and will cost $2,450. It will be conducted by Bill Burnett PhD (Florida State University) and Craig Maddigan, Product Specialist (ORTEC). It will begin with a review of the basics of Alpha Spectrometry before moving on to present a detailed overview of some of the most useful innovations for the analyst. There is a 'hands-on' approach with about 60-70% of the content being laboratory sessions. Small class sizes allow for excellent one-on-one student-instructor interaction. Contact Craig.Maddigan@ametek.com if you have any questions or would like to register for the course.

App Note

Establishing an ISO-CART Measurement Station to Meet Government Burial Regulations for Radioactive Material
By - Dr. Richard Hagenauer

This application note addresses choice of equipment, collimator settings, detector positioning, background measurements, counting times, and other good practice methods useful for the development of a measurement station. It includes some helpful hints on the use of the ISOTOPIC software itself. The limits related to unrestricted release of slightly contaminated material and transuranic limits are discussed.