The RADLAB was developed specifically for the metal industries and environmental control to provide the highest degree of accuracy in measured samples for its specific radiological content and activity.

- Full scale Isotope analysis
- Full scanning times
- Quick scan feature (Optional)
- Full network capabilities for system monitoring and servicing
- Large 6" (152mm) diameter WELL to accommodate different sample sizes



# RADLAB

LABORATORY GAMMA SPECTROMETER

# Detect and identify specific radioactive isotopes in same sample

The RADLAB spectrometer utilizes only the highest quality Thallium doped Sodium Iodide crystal, combined with state-of-the-art electronics and software. The result is the ability to distinguish between multiple isotopes and specific activity levels in the same sample. Results are quickly displayed and a report is generated.

# Simplified and Flexible

The RADLAB system uses a Windows™ based environment and the user based interface software utilizes a systematic approach to the step by step sequences when stabilizing the system, taking measurements and filling in data. There are no complex steps that are required to ensure the system is calibrated and taking measurements correctly. Connecting the RADLAB to the outside world is a TCP/IP connection and a serial port. All system functions can be accessed remotely via a network connection.

# International Atomic Energy Association (I.A.E.A.)

The RADLAB's design was focused on the I.A.E.A. recommended release limits. The user interface software is extremely flexible allowing the user to configure the RADLAB to best suit the applications library requirements.

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## **RADLAB Gamma Spectrometer System** consists of:

#### **Detector Case**

- Detector case: 24"H (60cm) x 24"L (60cm) x 16"W (40cm)
- Outer detector case: Painted aluminum
- Shielding material: Lead and copper
- System weight: 450lbs (204 Kg)
- Maximum sample well size: 6" (15cm) Diameter x 6" (15cm) High

#### **Electronics**

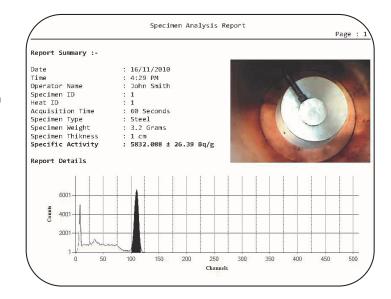
- Detection material: 21 in<sup>3</sup> (0.35L) Sodium Iodide, Thallium Doped (NaI(Tl))
- Integral PMT with EM shielding
- High speed DSP circuitry with High SNR
- Ultra stable high voltage software adjustable
- Controller with FPGA technology
- Internal memory: 2GB RAM
- Hard Drive: 120 GB
- Serial Port
- Two USB Ports (2.0)
- RJ45 10/100 Network Port
- High resolution touchscreen LCD display
- 110/220V 50/60Hz auto-selectable

### Software

- Windows<sup>™</sup> based operating system with Intel processor
- Windows<sup>TM</sup> based RADLAB application software
- Easy to use menu driven interface with touchscreen
- Configurable data storage with backup
- Easy to use graphic user interface
- Live data analysis, report generation
- Fully remote access with software and hardware service capability

## **Spectrometer Specifications**

- Energy resolution 8.5% or better for of 662 KeV
- Number of channels: 512
- Energy range: 30 KeV to 3.0 MeV (Gamma)
- Sensitivity calibration: Covers entire energy range
- System software monitor with operator alert



## **RADLAB Options**

- Scale Used to weigh sample and download directly into RADLAB system
- Digital Camera Photograph the sample and include a photo of the sample in question with the evaluation report
- UPS battery back up
- Quick Scan Mode Counts Per Second mode







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