

Miniature Integrated Nuclear Detection System

Increasing the Value of Detection

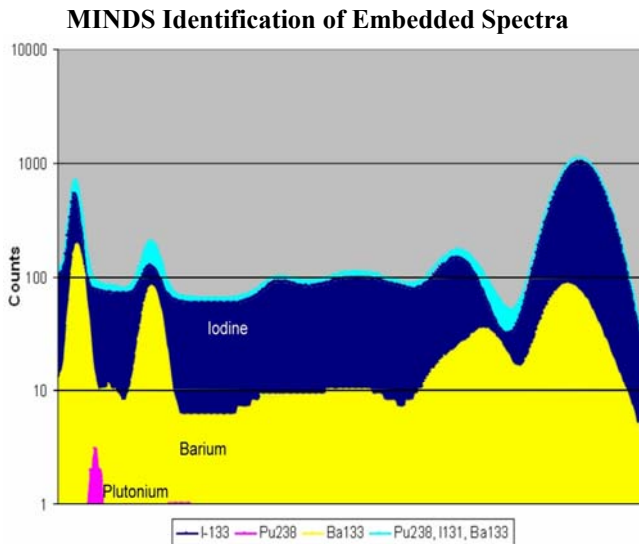
Description

MINDS™, the **Miniature Integrated Nuclear Detection System**, is a cost effective, software-enhanced detection and identification system that continually monitors the environment for the presence of X-Ray, gamma, and neutron emitting radionuclides.

- Low level detection capabilities - **identify one-billionth of the material deemed plausible to create a dirty bomb**
- Sensor agnostic, incorporating an open architecture enabling it to operate with many types of radiological sensors
- Differentiates between threat-inducing and acceptable industrial or medical spectra
- Library based on ANSI N42.38 requirements (expanding)

Software Enhanced and Sensor Agnostic

- Deploy as a standalone or multi-sensor system(s)
- Integrate and improve legacy security sensors
- Demonstrated ability to identify radionuclides that are intentionally concealed or masked



Interoperability

Integrates with existing security systems and procedures for a range of applications:

- X-Ray equipment to scan luggage and parcels
- Stanchion mounts to scan trucks, cargo or ships
- Portal systems used to detect chemical, biological and explosives on individuals
- Scan choke points in tunnels, bridges, toll booths
- Mobile applications for transportation, public safety, first responder and law enforcement

Reliable, Passive Identification

The MINDS system can scan a target, acquire, transmit, and *identify* a radionuclide in a fraction of a second, providing rapid analysis.

- Immediate detection and identification (1/2 sec)
- Eliminates the “car alarm” syndrome, where excessive false alarms render systems unreliable
- Identify spectra, even in high noise-to-signal ratio
- No interruption to commerce or traffic
- No emission of dangerous radiation
- No legacy “rad” disposal issues

Cost Effective

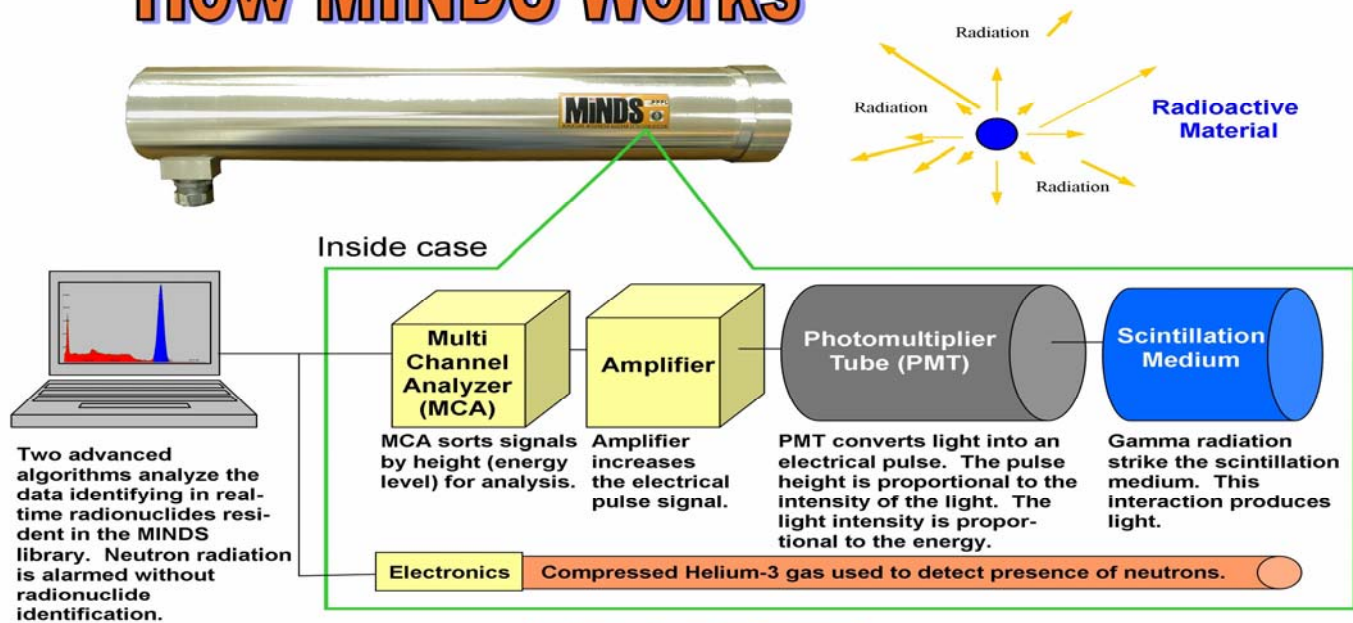
- Easy to install, maintain and operate
- Uses COTS components

Advanced Neural Network

The MINDS software has been in development for over four years; uses artificial intelligence and peak fitting algorithms working in tandem.

- Identifies embedded spectra not typically recognized by standard curve or peak fitting-based algorithms
- Operates continuously

How MINDS Works



Princeton Plasma Physics Laboratory

MINDS was created by Princeton Plasma Physics Laboratory (“PPPL”), a Department of Energy (“DoE”) funded laboratory managed by Princeton University. PPPL performs applied research in the fields of fusion energy and plasma physics research. It developed MINDS over the past four years with investment from the U.S. Army’s Armament Research, and Development Engineering Center (“ARDEC”), and InSitech, Incorporated (“InSitech”).

U.S. Army Armament Research, Development and Engineering Center

Headquartered at Picatinny, N.J., the ARDEC is the U.S. Army’s principal researcher, developer and sustainer of current and future armament and munitions systems.

InSitech, Incorporated

InSitech is the partnership intermediary representing the business interests of the U.S. Army’s ARDEC, located at Picatinny Arsenal in Morris County, New Jersey. InSitech is commercializing the federally funded IP portfolio resident at Picatinny, and their research partners (such as PPPL), and will invest in, acquire, and develop technology with outside entities. InSitech collaborates with Government agencies, academia, and the private sector to create business combinations to bring emerging technologies to market.

Contact Information:

Roger Adams, Director of Operations
MINDCo
roger_adams@msn.com
973-659-3357