



Center for Technology Transfer and Marketing

CTTM

## Method for reducing the background specific to a spectrometric system

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### DESCRIPTION

The invention relates to a method for reducing the background specific to a spectrometric system. The method is applied to a spectrometric system and consists in mounting a hose to the head of an overflow nozzle of a liquid nitrogen cylinder Dewar vessel and in introducing the other end inside a lead enclosure wherein there is a detector, and in mounting around a detector and cryostat support, a metal coil playing a role in shielding electrically and electrostatically the electronics associated to a spectrometric chain and putting to the ground the system shielding enclosure and some jackets which plate the enclosure at the inside, thereby reducing the background radiation spectrum.

### APPLICATION DOMAINS

Spectrometric measurements of gamma-emitting radioactive materials. Measurement and analysis laboratory, in situ monitoring of radioactivity, nuclear materials for inspections and safeguards, radioactive waste management and decommissioning activities of nuclear installations, or in high resolution gamma spectrometry

### MAIN ADVANTAGES

Method fits in the technical field of spectrometric measurements and research/measurement application of nuclear technologies and environmental protection.

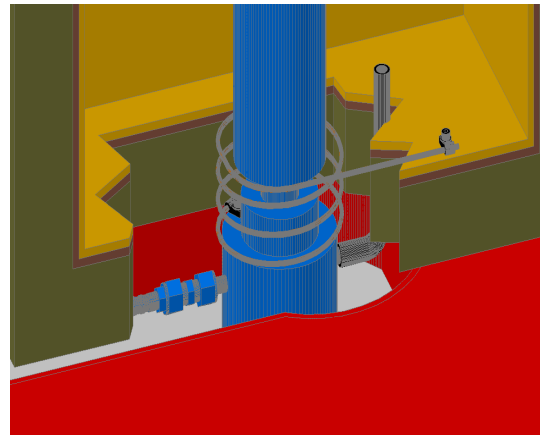
### CONTACT

**Marian Romeo Calin**

Phone: 004 021 404 61 99

E-mail: [rcalin@nipne.ro](mailto:rcalin@nipne.ro)

<http://salmrom.nipne.ro>



### POTENTIAL CUSTOMERS OR COMMERCIAL APPLICATIONS

Nuclear safeguards, monitoring environmental radioactivity, controlled areas and historical materials and nuclear waste

### KEYWORDS

Detector, spectrometric system, gamma spectrometry