IAEA
International Atomic Energy Agency
Atoms for Peace and Development

In-Situ Characterization of Radioactive Materials and Objects Using Portable High Purity Germanium Detectors

Seibersdorf, Austria

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Information Sheet

Introduction

If a radioactive source needs to be classified in various scenarios, the required information includes identification of the radioisotope(s) present and an estimation of the activity. In the field, identification of radioisotopes is most accurately performed using a high purity germanium (HPGe) detector. However, using a HPGe detector to estimate the total activity (especially in case of a shielding) may require additional software and hardware due to the complexity of the data.

This training will provide an overview of the general approach to estimate activity of radioactive sources and demonstrate the process using an example HPGe detector and software.

Objectives

Representatives from competent authorities that are involved in the use, specification, and sustainment of nuclear detection technologies used in nuclear security activities.

Target Audience

The IAEA encourages participants to give presentations on the work of their respective institutions that falls under the topics listed in above Topics Section.

Working Language(s)

English

Participation and Registration

All persons wishing to participate in the event have to be designated by an IAEA Member State or should be members of organizations that have been invited to attend.

In order to be designated by an IAEA Member State, participants are requested to send the **Participation Form (Form A)** to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) for onward transmission to the IAEA by **2 June 2025**. Participants who are members of an organization invited to attend are requested to send the **Participation Form (Form A)** through their organization to the IAEA by the above deadline.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters. Please be informed that the selection process will be accomplished by **4 July 2025**, by which date all the invitation letters will have been sent out to the selected candidates

Participants are hereby informed that the personal data they submit will be processed in line with the Agency's Personal Data and Privacy Policy and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. The IAEA may also use the contact details of Applicants to inform them of the IAEA's scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA's mandate.

Expenditures and Grants

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the event.

The application for financial support should be made using the **Grant Application Form (Form C)** which has to be stamped, signed and submitted by the competent national authority to the IAEA together with the **Participation Form (Form A)** by **2 June 2025**.

Visas

Participants who require a visa to enter Austria should submit the necessary application as soon as possible to the nearest diplomatic or consular representative of Austria.

Organization

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretary/Secretaries and correspondence on other matters related to the event to the Administrative Secretary.