



**IAEA**

International Atomic Energy Agency

*Atoms for Peace*

# **Technical Meeting on Trends in Analytical Applications of Synchrotron Based X-Ray Spectrometry Techniques and Developments in the Supporting Instrumentation**

**IAEA Headquarters  
Vienna, Austria**

**Vienna International Centre  
Room M0E03**

**2–6 October 2017**

**Ref. No.: F1-TM-52965**

## **Information Sheet**

### **A. Background**

Synchrotron radiation (SR) has been used as a tool for analytical research for over three decades, leading to exponential growth of research in many scientific disciplines. More than sixty synchrotron light sources have been built worldwide, and others are in the construction or planning phase. The IAEA has recognized the importance of SR sources for advanced research and analytical applications. In particular, within the framework of an interregional technical cooperation project, the IAEA supports the training of end users and beamline scientists, as well as the commissioning and operation of the International Centre for Synchrotron Light for Experimental Science and Applications in the Middle East (SESAME).

Since 2015, NSIL has operated the IAEAXSpe X-ray Spectrometry Ultra-High Vacuum Chamber (UHVC) end station at the Elettra Synchrotron facility in Trieste, Italy. This installation provides

access to state of the art equipment, supporting analytical capacity development in the field of X-ray science via a preferential beam time arrangement in a Coordinated Research Project.

## **B. Objectives**

The purpose of the meeting is to highlight, review and discuss current trends in analytical applications of synchrotron based X-ray spectrometry techniques and in the development of the supporting instrumentation. The following topics are expected to be included in the programme:

- Development trends in instrumentation and their relevance for the performance of X-ray spectroscopy techniques;
- Analytical applications based on X-ray spectroscopy techniques;
- Reference materials and quality control related issues;
- Addressing current needs of IAEA Member States for access to synchrotron facilities; and
- Role of the IAEA in supporting the activities undertaken by developing Member States to incorporate synchrotron based techniques into research and development.

## **C. Format**

To facilitate proceedings, participants are invited to contribute an oral presentation on subjects relevant to the scope and objectives of this meeting. Participants should submit an abstract of their proposed presentation along with their nomination.

The official language of the meeting is English. No interpretation will be provided. It is expected that the meeting will start at 09:30 on Monday, 2 October 2017, and conclude by 16:00 on Friday, 6 October 2017.

The outputs of discussions will be recorded for possible dissemination to Member States as an IAEA technical publication. Contributors of material to be included in the IAEA proceedings are required to assign all copyrights or rights to publish to the IAEA. Please complete and sign the attached Form for Submission of a Paper (Form B) and send it to the IAEA Scientific Secretary (see Section J below) by post or email. The authors should ensure that material they make available for possible publication by the IAEA does not include copyrighted material or other impediments for reproduction.

## **D. Administrative and Financial Arrangements**

The selected candidates will in due course be sent full details of the procedures to be followed with regard to administrative and financial matters.

No registration fee is charged to participants. The costs of the meeting facilities and of logistic support for the meeting will be borne by the IAEA.

As a general rule, the IAEA does not pay the costs for attendance at the meeting. However, limited funds may be made available to assist the attendance of selected participants and approved in accordance with the current IAEA rules and regulations. Travel and subsistence expenses of participants may be borne by the IAEA utilizing the limited funds that are available to help cover the cost of certain participants. Such assistance can be offered upon specific request to normally one participant per country provided that, in the IAEA's view, the participant on whose behalf assistance is requested will make an important contribution to the meeting. The application for financial support should be made at the time of designating the participant. If Governments wish to apply for financial support on behalf of their designees, they should address specific requests using the attached Grant Application Form (Form C) to the IAEA Scientific Secretary.

It should be noted that compensation is not payable by the IAEA for any damage to or loss of personal property. The IAEA also does not provide health insurance coverage for participants in meetings, workshops or training courses or for consultants. Arrangements for private insurance coverage on an individual basis should therefore be made. The IAEA will, however, provide insurance coverage for accidents and illnesses that clearly result from any work performed for the IAEA.

## **E. Registration and Participation**

The meeting may be attended only upon official designation. Participants should complete the attached Participation Form (Form A) and send it to the appropriate national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) for subsequent transmission to the IAEA, not later than **21 August 2017**. Designations received after that date or applications sent directly by individuals or by private institutions cannot be considered. Designating Governments will be informed in due course of the names of the selected candidates and at that time full details will be given on the procedures to be followed with regard to administrative and financial matters. For Member States receiving technical cooperation assistance, applications for financial support should be made at the time of designating the participant.

The meeting will be of interest to professionals involved in the field of synchrotron based X-ray spectrometry techniques or who have been designated by their national authorities to provide an assessment of their country's needs in these fields. Individuals wishing to be considered for participation are expected to submit a short abstract covering their work relevant to the objectives of the meeting.

## **F. Submission of Abstracts and Presentations**

### **Abstract Submission**

The abstract is expected to provide a summary of the content and principal conclusions of the presentation that the author intends to give at the meeting. The abstract must be sent, together with Forms A and B, to the appropriate national authority, and also directly to the IAEA Scientific Secretary ([R.Padilla-Alvarez@iaea.org](mailto:R.Padilla-Alvarez@iaea.org)), by **21 August 2017**.

**Important:** Contributors of material to be included in the expected technical publication are required to assign all copyrights or rights to publish to the IAEA. The authors should make sure that the files do not include copyrighted fonts or other impediments for reproduction.

The abstract should be sent in Microsoft Word format and according to the following instructions:

1) Page size: A4 (21 cm by 29.7 cm) – vertical orientation

2) Margins: 25 mm all around

3) Layout:

- Title: single-spaced, 14-point size, Times New Roman (TNR) font, bold
- Authors: single-spaced, 12-point size, TNR font
- Affiliation: single-spaced, 12-point size, TNR font, italics
- Text: 1.5 spaced, 12-point size, TNR font
- Length: one page

**Important:** In case of sending Microsoft Word files, authors should use True Type Embedded Fonts (when saving the file, click Tools, then Options, and tick Embed True Type fonts. This will help to prevent change of fonts when the file is read in a different system, as is expected in most of the cases). **PDF files are preferred.**

### **Presentation Submission**

Those authors whose presentations are accepted will be informed of the acceptance of their contributions by email by **11 September 2017**. The authors will be requested to prepare and submit their presentations in Microsoft PowerPoint or PDF format by **25 September 2017**.

## **G. Local Arrangements**

It is the responsibility of all participants to make their own travel arrangements to/from Austria. Detailed information on accommodation, local transport to/from the meeting venue, and other organizational details, will be sent to all designated participants well in advance of the meeting.

## **H. Visas**

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria well in advance of entry. An official letter of invitation will be issued to all participants by the IAEA Scientific Secretary.

## I. Deadlines and Key Dates

- **14 August 2017:** Submission of abstracts and requests to the IAEA for participation and financial support.
- **25 August 2017:** Participants are informed of the acceptance of their designations and of their requests for financial support.
- **25 September 2017:** Selected participants submit their presentations and contributions.

## J. Organization

### Scientific Secretary:

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