



International Symposium on Utilization of Accelerators

**Dubrovnik, Croatia
5–9 June 2005**

ANNOUNCEMENT AND CALL FOR PAPERS

1. INTRODUCTION

Particle accelerators, originally developed for basic research in nuclear and particle physics, have matured into versatile tools for applications in other branches of science as well as in industry and medicine.

In the electronics industry, accelerators are utilized for implanting atoms onto the surface of semiconductor materials as well as for analysis and development of novel materials. Accelerators are also used for hardening surfaces of medical metal implants and bearings. Synchrotron radiation sources utilize electrons circulating for many hours in storage rings, emitting synchrotron radiation in the wavelength range from infrared radiation to X rays. Synchrotron radiation has found important applications in materials science and biomedicine. A new and emerging field of accelerator applications is safety and security. Electron accelerators and neutron generators are used, for example, for the detection of explosives and for cargo inspection at border crossing points.

The main objectives of the symposium are to bring together experts in the field to exchange information and review the status of current developments and applications, to discuss new trends and technologies, and to promote research collaboration between laboratories in IAEA Member States.

Through its programmes on the utilization of accelerators, the IAEA contributes to new developments, training, the promotion and transfer of technology by organizing consultants meetings, Advisory Group Meetings and Coordinated Research Projects. The first symposium in this series was held in São Paolo (2001). The symposium is being hosted by the Government of Croatia through the Rudjer Boskovic Institute, Zagreb.

2. LIST OF TOPICS

The programme of the symposium consists of invited lectures and contributed papers. Papers on the following topics will be considered for oral presentation at the symposium. Poster sessions might be arranged if the number of relevant and high quality papers submitted exceeds the number acceptable for oral presentation.

- Applications of accelerators in materials and life sciences
 - Ion beam analysis (IA)
 - Ion beam modification of materials (IM)
 - Accelerator mass spectrometry (AM)
 - Biomedical applications (BA)

- Application of accelerators in industry
 - Ion implantation (II)
 - Ion beam treatment of materials (IT)
 - Electron and photon beam irradiation (EB)

- Applications of accelerators for the safety and security of people
 - Application of accelerators to humanitarian demining (HD)
 - Detection of explosives and illicit materials (DE)
 - Biosecurity and environmental protection (EP)

- Accelerator technology
 - Ion sources (IS)
 - Vacuum technology (VT)
 - Compact accelerators (CA)
 - Neutron generators (NG)
 - New concepts (NC)

3. PARTICIPATION

All persons wishing to participate in the symposium are requested to complete a Participation Form (see attached Form "A") and send it as soon as possible to the competent official government authority (see Section 12) for subsequent transmission to the IAEA. A participant will be accepted only if the Participation Form is transmitted through the competent official authority of a Member State of the IAEA or by an organization invited to participate. Participants whose designations have been received by the IAEA will receive further details approximately two to three months before the meeting.

4. EXTENDED SYNOPSES

Persons wishing to present a paper or poster during the symposium must submit an extended synopsis of maximum 800 words in electronic format (no paper copies should be submitted) directly to the IAEA on one of the subjects/topics listed under Section 2. The synopses (in Portable Document Format – PDF) should be submitted through the IAEA's web browser based, password protected file submission system, named **LISA** (<http://www.iaea.org/cgi-bin/lisa-ACC/start>). Instructions on using the LISA system are attached as Annex A, and a sample extended synopsis is attached as Annex B. Further instructions on how to use the LISA system will be available at the LISA website. An initial password, which can be obtained upon request (email: physics@iaea.org), is required to access the LISA system. Submissions can be made as of **25 October 2004**; the deadline for submission of the extended synopses is **3 December 2004**.

The synopsis should give enough information on the contents of the proposed paper to enable the Programme Committee to evaluate it. Introductory and general matters should not be included.

In addition, authors must submit the following forms to their appropriate government authority (see Section 12) for transmission to the IAEA by **3 December 2004**:

- Participation **Form A** (attached)
- **Form B** for Submission of a Paper (attached)

The extended synopsis will be considered by the Programme Committee only if the Participation Form A and Paper Submission Form B have been received by the Agency from official government channels.

5. PAPERS AND SYMPOSIUM PROCEEDINGS

(a) Acceptance of papers

Authors will be informed whether their papers have been accepted for presentation at a regular session or as a poster on the basis of the extended synopsis. The IAEA, however, reserves the right to refuse the presentation or publication of any paper that does not meet the expectations based on the information given in the extended synopsis.

(b) Submission of full manuscripts

Specifications for the layout and electronic format (PDF) of the full manuscripts and for the preparation of posters will be sent to all main authors of accepted papers. These specifications will also be posted on the symposium web site when available. The full manuscripts **must** be submitted through LISA in the same way as the two page synopses (see Annex A). LISA will be reopened for submission of accepted papers on **13 March 2005**. The deadline for electronic submission of the full papers, in PDF, is **15 April 2005**.

(c) Publication of proceedings

The proceedings of the symposium will be published by the IAEA in unedited form as a CD-ROM. All participants will receive a free copy of the CD-ROM.

6. EXPENDITURES

The costs for the organization of the symposium are borne by the IAEA and the Host Government. No registration fee is charged to participants.

As a general rule, the IAEA does not pay for participants' travel and living expenses. However, limited funds are available to support the attendance of selected specialists from developing Member States. Usually, only one travel grant may be awarded per country.

If governments wish to apply for a grant on behalf of one of their specialists, they should address specific requests to the IAEA. Governments should ensure that applications for grants are:

- (a) Submitted by **3 December 2004**
- (b) Accompanied by a duly completed and signed Grant Application Form (as attached).

Applications which do not comply with the conditions, mentioned under (a) and (b) cannot be considered.

The grants awarded will be in the form of lump sums usually covering only part of the cost of attendance.

7. WORKING LANGUAGE

The working language of the meeting will be English. All communications, synopses, abstracts and papers must therefore be sent to the IAEA in English.

8. DISTRIBUTION OF DOCUMENTS

A preliminary programme of the symposium will be sent to all participants before the meeting. The final programme and the book of extended synopses will be distributed upon registration.

9. ACCOMMODATION

Detailed information on accommodation and other items will be sent to all designated participants approximately two to three months before the meeting.

10. VISA

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

11. SECRETARIAT

The following persons may be contacted for further information or assistance:

(a) Scientific issues – Scientific Secretariat (IAEA)

Mr. Ulf Rosengard

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(b) Administrative issues – Symposium Organizer (IAEA)

Ms. Karen Morrison

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12. CHANNELS OF COMMUNICATION

The Participation Form A, the Paper Submission Form B, together with two copies of each synopsis, and, if applicable, the Grant Application Form C, should be sent to the competent official authority (Ministry of Foreign Affairs, national atomic energy authority) for transmission to the IAEA.

Subsequent correspondence on scientific matters should be sent to the Scientific Secretary and correspondence on administrative matters to the IAEA's Conference Service Section.

13. SYMPOSIUM WEB PAGE

Please visit the IAEA symposium web site regularly for any new and/or updated information regarding this symposium under:

<http://www-pub.iaea.org/MTCD/Meetings/Announcements.asp?ConfID=115>