

To: Mr. Pradip Roychowdhury,  
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#### Important Addresses

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*Inset shows a photograph of a three-electrode ECR Ion Source developed at BARC*

## DAE-BRNS announces Symposium on Ion Beam Technology and Applications

September 19-21, 2007



Venue  
Multipurpose Hall,  
BARC Training School Hostel,  
Anushaktinagar, Mumbai – 400 094  
India

Organized by  
Bhabha Atomic Research Center (BARC)

in Association with  
Power Beam Society of India (PSI)

## General Information

Ion Beam (IB) Technology finds wide applications not only in nuclear, space and defense-related industries but also in medical, nano- technology and semiconductors industries. IB technologies have distinguished themselves in terms of compactness, process efficiency, techno economics and innovative possibilities. As we advance in to the new technology era, there is a need for evolving strategies to apply the IB technology to a large number of industrial sectors. The number of users of IB machines is steadily increasing in the country. In recent years, the use of IB is becoming common practice to develop novel materials, to increase specific yields and to improve the all-round product quality.

The DAE-BRNS shall organize a symposium on Ion Beam Technology and Applications (IBTA 07) at Bhabha Atomic Research Center (BARC), Mumbai, India during September 19-21, 2007 in association with Power Beam Society of India (PSI).

This Symposium shall provide an opportunity for active researchers, scientists and industries to review the current scenario, to share the available expertise and to consider directions for future development. There will be a review and invited talks by eminent specialists working in this field. The lectures will cover a wide spectrum of issues in IB technology and applications. A special feedback session has also been planned where industry will have an opportunity to highlight specific issues of their interest. Some of the participants will be invited to make short presentations of their work.

## Major themes to be covered

- Ion sources
  - a) Fundamentals: Plasma Generation, Ion Extraction, Beam Transport Systems, Beam Diagnostics, and Beam Simulations

b) Types of Ion Sources: ECR, EBIS, RF, Microwave, Negative, Vacuum-arc, Surface and Laser Ion Source and others

- Ion Beam Technology Equipment
- Ion Implantation
- Plasma Immersed Ion Implantation
- Surface Analysis and Modification
- Focused Ion Beams
- Neutron Production
- Fusion energy
- Medical Treatment
- Ion Propulsion
- Charge Neutralization
- New Applications

## Date and Venue

The Symposium is scheduled from **September 19 – 21, 2007** at Multipurpose Hall, BARC Training School Hostel and Guest House, Anushaktinagar, Mumbai – 400094, India.

## Registration fees

Students	: Rs 300
PSI Members	: Rs 500
Delegates from Universities/ Educational Institutions & Government Departments in India	: Rs 600
Delegates from Industries	: Rs 1000

## Travel Support

There is a provision of travel support (return train fare by sleeper class) for needy students. An early registration is therefore recommended. Such students should send a letter of recommendation by their respective academic supervisors.

## Exhibition

It is proposed to hold an exhibition of ion beam related equipment, products and accessories at the venue of the symposium.

## Registration and Manuscript Submission

All interested participants should send one page abstract along with registration form. Photocopies of registration form can be used, if required. Papers should be submitted in electronic form (Word format) through email at [sibta07@gmail.com](mailto:sibta07@gmail.com). The length of the paper is restricted to eight pages (A4 size, single space, font size 12) including figures and tables.

## Participation

Interested persons are requested to immediately contact the convener for registration. As the accommodation is limited, an early registration will be appreciated.

## Important Dates

Submission of Registration form with abstract: **July 15, 2007**

Intimation regarding acceptance: **July 20, 2007**

Submission of full manuscript: **July 31, 2007**

## Board of Research in Nuclear Sciences

Board of Research in Nuclear Sciences (BRNS) is an advisory body to recommend financial assistance to universities/institutions/laboratories/ with the objective to promote scientific research in areas of relevance to the mandate of the Department of Atomic Energy (DAE), India.

## Power Beam Society of India (PSI)

Power Beam Society of India is a non-profit organization formed to promote the development and growth of Power Beams and Materials Processing. Its main objective is to bring about a constructive synergy between industry and academic institutions working in this newly emerging high technology area. Further information about the society is available at <http://www.powerbeam.org>

## DAE-BRNS SYMPOSIUM

### ION BEAM TECHNOLOGY AND APPLICATIONS (SIBTA 07)

September 19 – 21, 2007

### REGISTRATION FORM

(Please write or type in block letters)

Name: \_\_\_\_\_

Designation: (Prof./Scientist/Engineer/Researcher)

Address: \_\_\_\_\_

Registration fee category: \_\_\_\_\_

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

Area of Interest: \_\_\_\_\_

Email: \_\_\_\_\_

- I shall attend the workshop and I am interested in presenting a talk.
- I shall attend the workshop.
- I am uncertain and want to receive further information.
- I shall be accompanied by ..... persons.
- I need travel support.

Accommodation required: YES / NO

Signature with date: \_\_\_\_\_

Last date for receipt of confirmed participation is **July 15, 2007.**

Payment of registration fees may kindly be made through Demand draft, drawn in favour of "Power Beams 07", payable at Mumbai.