

## About the Workshop

The Indian Association of Nuclear Chemists and Allied Scientists (IANCAS) was founded in 1981 with an objective to popularize the beneficial aspects of nuclear energy, applications of radioisotopes in physical sciences, industry, agriculture and health care among the academic community. This workshop will provide a forum for mutual interaction among faculty members and scientists from various research institutions.

Eminent scientists of international repute specialized in topics related to Nuclear Physics, Production and Application of Radioisotopes, Nuclear Reactors, Atomic Energy Programme in India will be the resource persons of the workshop. These lectures will be supplemented by specialized experimental hands-on training with a view to simulate the participants to use these techniques in their respective research areas. IANCAS will provide one text book on the theory of the workshop and an experimental book for each participant free of cost.

## Scientific Programme

### Lectures:

1. Introduction to Radioactivity
2. Nuclear Stability and Structure
3. Interaction of Radiation with Matter
4. Radiation Detection
5. Neutron Activation Analysis
6. Nuclear Fission and Nuclear Reactors
7. Production of Radioisotopes
8. Isotopes in Health Care, Agriculture & Industry
9. Applications of Radioisotopes in Chemical Research
10. Techniques in Safe Handling of Radioisotopes
11. Radiation Chemistry
12. Chemistry of Actinides

There will be two lectures everyday during morning session and experiments in the afternoon.

## Experimental Work

1. Separation of Radioisotopes & Half life Determination
2. Isotope Dilution Analysis
3. Radioimmunoassay (RIA)
4. Solubility Product of Sparingly Soluble salt using  $I^{131}$  Radioactive Isotope
5. GM Characteristics
6. Gamma Spectrometry, NaI (TI)
7. Absorption & Detection of Nuclear Radiation

### Call for Participants:

Applicants are invited in the enclosed "Registration Form" from interested faculty members and researchers engaged in teaching and research in the relevant areas like Nuclear Physics, Radiation Physics, Radiochemistry, Bioscience, Biotechnology, Health Science, Pharmaceutical Chemistry and other related areas.

### Deadlines:

Submission of Registration form: **25<sup>th</sup> Jan 2010**

Intimation of Acceptance: **31<sup>th</sup> Jan 2010**

### Registration:

Enclosed Registration form or its photocopy may be duly filled in and forwarded by the Head of the Department/Institute. Participants are required to send the Registration Fee (**Rs. 500/-**) by DD/Cheque (outstation Rs 50/- extra) payable at BHU drawn on 'National workshop on Radiochemistry' before the deadline.

### Accommodation:

Lodging and Boarding will be provided in University Guest House (limited numbers) at nominal rates. For details please contact the Convener.

### Banaras Hindu University:

Institute of Technology owes its existence to the far-sighted vision and relentless efforts of its founder Mahamana Pandit Madan Mohan Malviya as BENCO in 1919, the College of Mining and Metallurgy (MINMET) in 1923 and the College of Technology (TECHNO). The Department of Applied Chemistry was established in year 1985 and it comprises of highly qualified, trained and dedicated faculty. The prime responsibility of the Department is to organize the teaching of Applied Chemistry programmes and provide excellent research facilities in the thrust areas of Applied Chemistry and related Engineering disciplines.

## REGISTRATION FORM

**72<sup>nd</sup> BRNS-IANCAS  
National Workshop on**

## RADIOCHEMISTRY AND APPLICATIONS OF RADIOISOTOPES February 15-23, 2010

Please fill this form or photocopy and return the same not later than January 25<sup>th</sup>, 2010. The form may also be downloaded from university website, [www.itbhu.ac.in](http://www.itbhu.ac.in).

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

Designation: \_\_\_\_\_

Organisation: \_\_\_\_\_

Area of Research/Teaching: \_\_\_\_\_

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

Telephone: \_\_\_\_\_ Fax No.: \_\_\_\_\_

E-mail: \_\_\_\_\_

I require accommodation from February\_\_\_\_  
to \_\_\_\_\_, 2010.

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

Forwarded by: \_\_\_\_\_

To  
**Dr. D. Tiwary, Convener,**  
72<sup>st</sup> BRNS-IANCAS National Workshop  
Radiochemistry and Applications of Radioisotopes  
Department of Applied Chemistry,  
Institute of Technology,  
Banaras Hindu University, Varanasi-221005  
Email: [dtiwary.apc@itbhu.ac.in](mailto:dtiwary.apc@itbhu.ac.in)  
Mobile: 09415992174

**Indian Association of Nuclear Chemists  
and Allied Scientists, BARC, Mumbai**

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Shri. B. K. Sen	Vice-President
Dr. Alok Srivastava	Vice-President
Dr. A. V. R. Reddy	General Secretary
Dr. (Mrs.) Veena Sagar	Treasurer

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*Prof. D.P. Singh*, Vice Chancellor  
Banaras Hindu University

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FCD, BARC, Mumbai

**President:**

*Prof K. P. Singh*  
Director, Institute of Technology (BHU)

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Prof. P. C. Pandey  
Head, Applied Chemistry [BHU]

**Convener:**

*Dr. D. Tiwary*  
Department of Applied Chemistry (BHU)

**Co-Convener:**

*Dr. S. H. Hasan*,  
Department of Applied Chemistry (BHU)

**Treasurer:**

*Dr. Y. C. Sharma*  
Department of Applied Chemistry (BHU)

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Prof. R.B. Rastogi  
Prof. M.A. Quraishi  
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Dr. R. Ghosh  
Dr. K.D. Mandal  
Dr. S. Singh  
Dr. I. Sinha  
Dr. M. Malviya  
Dr A. Durgbanshi

**From:**

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**72<sup>nd</sup> BRNS-IANCAS National Workshop  
on  
RADIOCHEMISTRY AND  
APPLICATIONS OF RADIOISOTOPES  
February 15-23, 2010**

**Announcement**



*Organized by*  
**Department of Applied Chemistry  
Institute of Technology  
Banaras Hindu University  
Varanasi-221005**

*Supported by:*  
**Board of Research in Nuclear Sciences (BRNS)  
Department of Atomic Energy, Mumbai**

*in Collaboration with*  
**Indian Association of Nuclear Chemists  
and Allied Scientists (IANCAS), BARC,  
Mumbai**