

NUCAR 2025

17th Biennial DAE-BRNS Symposium on
Nuclear and Radiochemistry

Sponsored by

Board of Research in Nuclear Sciences (BRNS)

Organized by

Bhabha Atomic Research Centre (BARC), Mumbai

In association with

Indian Association of Nuclear Chemists & Allied Scientists (IANCAS)



April 23 – 26, 2025



**DAE Convention Centre, Anushaktinagar,
Mumbai – 400 094, India**



www.iancas.org.in/nucar2025



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ABOUT NUCAR-2025

The DAE-BRNS sponsored 17th Biennial Symposium on “Nuclear and Radiochemistry (NUCAR-2025)” is being organized by Bhabha Atomic Research Centre (BARC), in association with Indian Association of Nuclear Chemists and Allied Scientists (IANCAS), at DAE Convention Centre, Anushaktinagar, Mumbai, India, during April 23-26, 2025. This symposium is sponsored by the Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy (DAE), Government of India. This conference will be one of the largest meetings exclusively dedicated to radiochemistry and allied sciences. The main objectives of the NUCAR series of symposia are to provide a forum for scientists and researchers to discuss the recent advances in various topics such as nuclear reactions and nuclear probes, chemistry and spectroscopy of actinides, reactor materials and fission products, chemistry of the nuclear fuel cycle, radioanalytical chemistry, application of radioisotopes and radiation technology in healthcare, agriculture and industries, environmental radioactivity, nuclear instrumentation, nuclear safeguards & forensics, etc. NUCAR is a very familiar symposium for scientific communities of DAE, National Laboratories and various Academic Institutes in India and abroad. The conference will be extremely useful for young researchers in the sense that it will be attended by eminent scientists from the National Laboratories, Universities and Research Institutes from India and abroad, which will provide a platform for effective interactions among the scientists engaged in research in the areas of nuclear and radiochemistry and allied sciences. BARC, in association with IANCAS, has been organizing a series of NUCAR symposia throughout the country to popularize the subject of "Nuclear and Radiochemistry" and to highlight the peaceful use of Atomic Energy. The earlier venues and years of NUCAR symposia were:

- 2023 - DAE Convention Centre, BARC, Mumbai
- 2021 - DAE Convention Centre, BARC, Mumbai
- 2019 - DAE Convention Centre, BARC, Mumbai
- 2017 - KIIT University, Bhubaneswar, Odisha
- 2015 - Nabhikiya Urja Bhavan (NPCIL), Anushaktinagar, Mumbai
- 2013 - Govt. Model Science College, Rani Durgavati University, Jabalpur
- 2011 - GITAM University, Visakhapatnam, Andhra Pradesh
- 2009 - Mithibai College, University of Mumbai, Mumbai
- 2007 - M.S.University of Baroda, Vadodara, Gujarat
- 2005 - Guru Nanak Dev University, Amritsar, Punjab
- 2003 - BARC, Anushaktinagar, Mumbai
- 2001 - Savitribai Phule Pune University, Pune, Maharashtra
- 1999 - BARC, Anushaktinagar, Mumbai
- 1997 - Saha Institute of Nuclear Physics, Kolkata
- 1995 - Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam, Tamil Nadu
- 1993 - Andhra University, Visakhapatnam, Andhra Pradesh

SCOPE

- A. Nuclear Chemistry and Nuclear Probes
- B. Chemistry of Reactor Materials
- C. Chemistry and Spectroscopy of Actinides
- D. Chemistry of Fission and Activation Products
- E. Nuclear and Radioanalytical Techniques
- F. Radioisotopes & Radiation Technology
- G. Environmental Radioactivity
- H. Nuclear Safeguards & Nuclear Forensics
- I. Nuclear Instrumentation & Application of AI

The four-day symposium will bring together a panel of highly accomplished experts in the field of nuclear & radiochemistry and allied sciences. The scientific programme of the symposium includes key note address, plenary talks, invited talks and invited short lectures by eminent scientists from India and Overseas. The invited talks will encompass both basic studies and applications addressing the topics of both the front end and back end of the nuclear fuel cycle in addition to the topics as per scope of the symposium. Contributed papers will be presented in both Oral and Poster sessions. It is proposed to have oral presentations by the researchers based on the novelty of their work as recommended by the reviewers. Both the oral and poster presentations will be reviewed by a panel of juries for the best presentation awards. Invited talks and contributory abstracts will be published as a book of abstracts and a soft copy of the same will be distributed to the delegates during the symposium.

Board of Research in Nuclear Sciences (BRNS)

The Department of Atomic Energy (DAE), through its nodal funding agency, the Board of Research in Nuclear Sciences (BRNS), supports the extramural research and development activities in the field of nuclear and allied sciences, engineering and technology. The major activities of BRNS includes identifying and funding of suitable R&D programmes and projects, awarding fellowships to pursue doctoral program, and providing research grants to young scientists. It extends financial support to symposia and conferences organized by professional bodies and other agencies. It also organizes symposia on the topic of relevance and interest to DAE as well as other frontier areas of science and technology. Other important activities of BRNS are establishment of chairs in universities and other institutions of higher learning, creation of infrastructure facilities for advance research, and the identification, creation and support of the centres of excellence. For more information about BRNS activities, please visit the website (www.brns.res.in).

AUTHORS / PARTICIPANTS PLEASE NOTE

- ✚ Contributory papers (one-page abstracts) are invited on topics listed under the scope of the symposium. The abstract template and submission guidelines can be downloaded from the symposium website: www.iancas.org.in/nucar2025.
- ✚ A one-page abstract in the given template shall be submitted on the website only. Abstracts not complying with the scope or format will not be accepted. Abstracts based on original and unpublished work will only be accepted.
- ✚ Abstracts should be categorized (A to I) as per the titles given under the SCOPE of the symposium. However, depending on the recommendation of the reviewer, the category of the abstract may be changed.
- ✚ All the participants of NUCAR-2025 (with or without contributory papers) are requested to register in advance by filling the registration form online at the symposium website: www.iancas.org.in/nucar2025. After registration on the website, a login ID will be created. Before submission of the abstract, the participants must create/register a 'user account' at the website. During the abstract submission, the total number of authors shall be given, and e-mail addresses of all the authors are must for the final submission of the abstract. The presenting author (in the author's name) should be underlined. The template for the abstracts is available on the website: www.iancas.org.in/nucar2025.

IMPORTANT DATES (Deadlines)

Online Registration Starts	:	December 15, 2024
Submission of Abstract	:	January 31, 2025
Intimation of Acceptance	:	February 15, 2025
Payment of Registration Fee	:	April 1, 2025
Request for Accommodation	:	April 1, 2025

REGISTRATION FEE

PhD Students and Research Fellows	:	INR 2000
Delegates from Govt. Organization & Academic Institutes:		INR 5000
Accompanying Person (Indian)	:	INR 4000
Delegates from Public Sectors / Private Industries	:	INR 10,000
Delegates from Overseas	:	USD 250
Student /Accompanying Person from Overseas	:	USD 100

Registration fee shall include the registration kit containing symposium materials, lunch / tea / coffee / refreshments during the symposium. Registration kit shall be excluded for the accompanying person. Registration fee does not cover the accommodation charges.

BANK DETAILS

Account Name	:	NUCAR-2025
Account Number	:	43559903133
Bank Name	:	State Bank of India
Branch	:	BARC Branch Trombay
IFSC Code	:	SBIN0001268
SWIFT Code	:	SBININBB508
MICR Code	:	400002006
Mode of payment	:	NEFT / RTGS

A transaction copy of the receipt with name(s) shall be sent to: nucarbarc2025@gmail.com. The registration fee can also be paid through a Demand Draft (DD) drawn in favour of “NUCAR-2025” payable at Mumbai. Spot registration by cash payment may kindly be avoided. Registration fee receipts will be provided to the participants during the symposium.

ACCOMMODATION

Limited accommodation for delegates will be available at BARC Guest Houses and Hostels on the payment basis. Delegates interested in staying at Private Hotels can book their accommodation directly with the hotel and inform us accordingly. Requests for accommodation should be made on the symposium website only after payment of the registration fee.

TRAVEL ARRANGEMENTS

Participants are requested to make their own travel arrangements. Limited financial assistance to the students / research scholars (in case they are not able to get it from their parent institutes) may be provided upon request in advance. Financial support shall be limited to the travel by 3AC train ticket for the shortest route. A completely filled and signed Financial Assistance Requests Form (download from the website) shall be sent by e-mail (nucarbarc2025@gmail.com / nucar2025@barc.gov.in) positively by April 1, 2025. On-the-spot requests for travel assistance will not be entertained.

About Venue: DAE Convention Centre

DAE-Convention Centre is located in Anushaktinagar, the residential colony of Bhabha Atomic Research Centre (BARC), Mumbai. BARC is the premier multidisciplinary Nuclear Research Centre of India. Anushaktinagar is located in the north eastern part of Mumbai city, which is well connected to other parts of India and to the rest of the world. Participants arriving by train may alight at Dadar, Mumbai Central, Mumbai CST, Kurla or Bandra Terminus. Those travelling by air will arrive at Chhatrapati Shivaji Maharaj International Airport (CSMIA). Anushaktinagar is about 22 km from Mumbai CST, less than 20 km from the other terminals, and about 20 km from the international airport (CSMIA). Black-Yellow-metered taxis are available at airports and railway stations, along with mobile-app based rental cars. Delegates coming by flights are advised to take taxis from pre-paid taxi service or mobile-app based rental cars at the airport. Taxi fares are based on tariffs related to the meter readings. Anushaktinagar is also approachable by the harbour branch of local trains that start from Mumbai CST and pass through Mankhurd station. Those availing local trains may alight at Mankhurd station (Harbour line), and take an auto-rickshaw to reach BARC Guest House located at Anushaktinagar.

About Mumbai

Mumbai, formerly known as Bombay, is India's financial and entertainment capital, located on the west coast of the country. It is one of the largest cities in the world known for its vibrant culture, historical landmarks, and diverse population. Mumbai is home to Bollywood, India's massive film industry, and is a hub for commerce, finance, and trade. The city is also famous for its bustling beaches, colonial architecture, iconic landmarks like the Gateway of India, and its dynamic food scene. A few iconic tourist spots that capture the essence of Mumbai's history, culture, and natural beauty are :

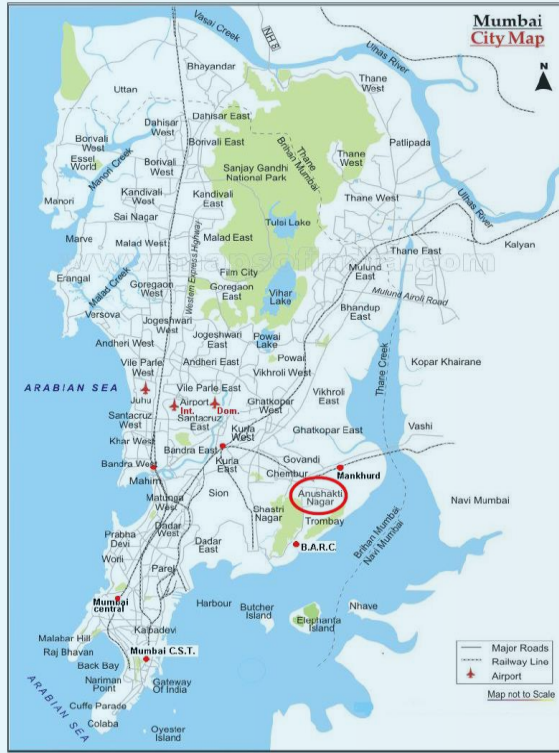
- ✚ **Gateway of India** – A historic archway overlooking the Arabian Sea, symbolizing Mumbai's colonial past.
- ✚ **Elephanta Caves** – Ancient rock-cut caves with Hindu sculptures, located on Elephanta Island that is easily accessible from the Gateway of India through ferries / speedboats.
- ✚ **Chhatrapati Shivaji Maharaj Terminus** – A UNESCO World Heritage railway station known for its stunning Victorian architecture.
- ✚ **Marine Drive** – A scenic promenade along the coastline, perfect for a stroll with sunset views.
- ✚ **Juhu Beach** – A popular spot for relaxation, street food, and sunset views.
- ✚ **Siddhivinayak Temple** – A famous Hindu temple dedicated to Lord Ganesha.
- ✚ **Sanjay Gandhi National Park** – A large urban park with trekking trails, a lion safari, and ancient caves, namely the Kanheri Caves.

Apart from tourist places, Mumbai also houses several academic and research institutes The University of Mumbai, Bhabha Atomic Research Centre (BARC), Tata Institute of Fundamental Research (TIFR), Indian Institute of Technology (IIT) Bombay, Veermata Jijabai Technological Institute (VJTI), and Institute of Chemical Technology (ICT).

Map of Mumbai City



GPS QR Code for DAE Convention Centre



Marine Drive Mumbai



Flamingo flocks at Vashi Creek



Gateway of India

Hotel Taj Mahal Mumbai



CST Terminus Railway Station Mumbai



Bandra-Worli Sea Link Bridge



Mount Merry church Bandra



Siddhi Vinayak temple



University of Mumbai Clock Tower



Mumbai Local Train



Sun Set at Juhu Beach

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For periodic updates, please visit the website:

www.iancas.org.in/nucar2025