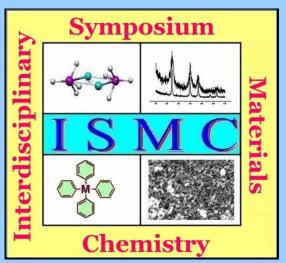




# DAE-BRNS 9th Interdisciplinary Symposium on Materials Chemistry

# December 7-10, 2022

Venue: DAE Convention Centre, Anushaktinagar, Mumbai



Web site: www.smcindia.org/ismc-2022

## Organized by

Society for Materials Chemistry, Mumbai &

# **Chemistry Division**

Bhabha Atomic Research Centre Trombay, Mumbai-400085, India

# Sponsored by

## **Board of Research in Nuclear Sciences**

Department of Atomic Energy Government of India, Mumbai-400 085

## **PATRONS**

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- T. Das, BARC, Mumbai

Awadhesh Kumar, BARC, Mumbai

Sanjiv Kumar, NCCCM, Hyderabad

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- P. K. Mohapatra, BARC, Mumbai
- S. Nigam, BARC, Mumbai
- C. N. Patra, BARC, Mumbai
- B. S. Patro, BARC, Mumbai
- V. Polshettiwar, TIFR, Mumbai
- R. K. Singhal, BARC, Mumbai
- V. Sudarsan, BARC, Mumbai
- A. K. Tripathi, BARC, Mumbai
- R. Tewari, BARC, Mumbai
- R. K. Vatsa, DAE, Mumbai

## SCOPE OF THE SYMPOSIUM

The 9<sup>th</sup> Interdisciplinary Symposium on Materials Chemistry, ISMC–2022, is being organized jointly by the Society for Materials Chemistry (SMC) and Chemistry Division, Bhabha Atomic Research Centre (BARC), Trombay, Mumbai, India, during December 7-10, 2022. The symposium is supported by Board of Research in Nuclear Sciences (BRNS) and Department of Atomic Energy (DAE). In this Symposium, it is planned to focus on contemporary research areas of materials chemistry relevant to DAE programmes. Deliberations of the symposium will cover the following topics:

- Nuclear materials
- Nanomaterials
- Carbon based materials
- Materials for energy conversion and storage
- Fuel cell materials and other electro-ceramics
- Materials for healthcare
- Polymers and soft condensed matter
- Thin films and surface chemistry
- Magnetic materials
- Catalysis
- Chemical sensors
- Organic and organometallic compounds
- High purity materials
- Hybrid materials and composites
- Computational materials chemistry

IMPORTANT DATES		
Last date for submission of papers in prescribed template	August 12, 2022	
Acceptance of papers (not applicable for invited speakers)	September 30, 2022	
Payment of registration fee	November 18, 2022	

**Note**: Registration fee should be sent only after receiving intimation of acceptance of your paper

#### ADDRESSES FOR CORRESPONDENCE

Symposium Email: ismc2022@smcindia.org

#### **Office Bearers**

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Email: pramod@barc.gov.in

#### **SUBMISSION OF CONTRIBUTORY PAPERS**

Desirous participants may submit their contributory papers as per the template on the symposium website (<u>www.smcindia.org/ismc-2022</u>) before **August 12, 2022**. Acceptance of papers will be communicated by **September 30, 2022**. After acceptance of the paper, registration is mandatory to participate in the symposium (Last date of registration is **November 18,2022**).

#### **GENERAL GUIDELINES FOR CONTRIBUTORY PAPERS**

- Language: English
- Paper size: A4; 1 inch margins on all sides
- Text: Times New Roman, 10 pt font; single line spacing; no extra spacing between paragraphs (see template for more details)
- Size: Not more than 1 page, including tables, references and illustrations
- One page spaces should be fully utilized with sufficient scientific information. Papers with insufficient information will not be considered.
- File format: Microsoft Word (Office 2003, 2007, 2010)

#### REGISTRATION DETAILS AND FEE STRUCTURE

All the participants of ISMC-2022 are expected to get registered in advance by filling the registration form online (<a href="www.smcindia.org/ismc-2022">www.smcindia.org/ismc-2022</a>), giving registration fee details. Registration fee should be credited to ISMC account by online transfer/RTGS/NEFT mode only. Payment made by other modes will not be taken into consideration. ISMC account details and other information will be provided in the intimation letter regarding acceptance of paper. The registration fee covers electronic copy of symposium proceedings (CD), lunch, dinner and refreshments during the symposium period, but does not cover the accommodation charges.

#### Registration fee is non-refundable.

The c	letai	ls	of	the reg	istrat	ion fee	e are g	iven	below:
		_	-						

Research Scholars	Rs. 3500/-*
Delegates from Universities /Educational Institutions/	Rs. 6000/-*
Government Departments/ accompanying person with delegates	
Delegates from Public Sector Undertakings	Rs. 9000/-*
Delegates from Industries	Rs. 10000/-
Delegates from abroad#	US \$ 300/-
Accompanying person with foreign delegates#	US \$ 300/-
Research Scholars from abroad#	US \$ 300/-

<sup>\*</sup>A concession of Rs. 500/- is applicable to Life members of Society for Materials Chemistry (SMC)

# Overseas participants must obtain Business VISA to attend the conference. Tourist VISA holders are not permitted to enter symposium venue.

#### **ACCOMMODATION**

Limited accommodation for delegates will be available at BARC Guest Houses/Hostels, on payment basis. Delegates interested to stay at Private Hotels can do so directly with the hotel and inform us accordingly. Request for accommodation should be made at symposium website only after payment of registration fee. Accommodation for only one author per contributory paper will be provided. Accompanying persons, if any, are requested to make their own accommodation arrangement.

### TRAVEL ASSISTANCE

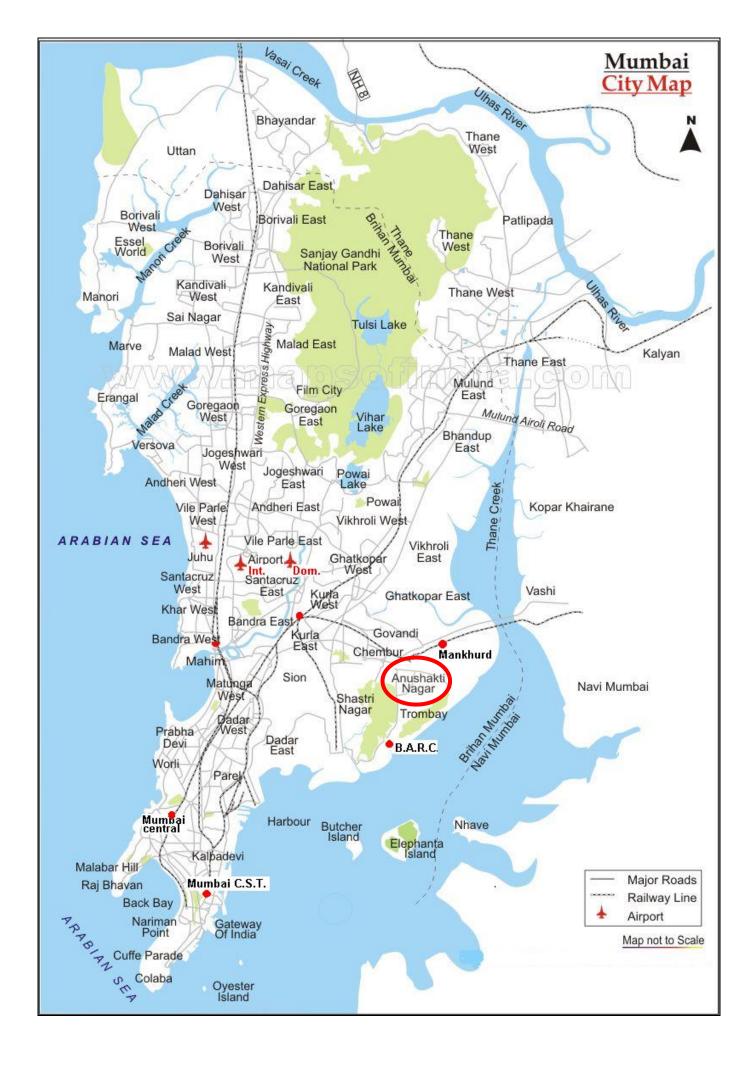
Participants are requested to make their own travel arrangements. Financial assistance by second class train fare for shortest route of travel may be available to a limited number of research scholars or students presenting paper, in case their establishment is unable to arrange for the same. Requests for financial assistance must be forwarded through the Director/Head of the parent institution to the Secretary, Symposium Organizing Committee, ISMC-2022, positively by October 31, 2022. On the spot requests for travel assistance will not be entertained.

## THE VENUE, DAE-CONVENTION CENTRE, ANUSHAKTINAGAR, MUMBAI



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 at 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 30 km from Mumbai CST, less than 30 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. Delegates coming by flights are advised to take taxi from pre-paid taxi service kiosks at the airport. Taxi fares are based on tariff 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 and take auto-rickshaw from there for reaching the BARC Guest House located at Anushaktinagar.

N.B. Landmarks can be identified in the enclosed map.



## **BOARD OF RESEARCH IN NUCLEAR SCIENCES**

Board of Research in Nuclear Sciences (BRNS) supports research and development activity in universities, institutes of higher learning and national laboratories in the fields relevant to the mandate of Department of Atomic Energy. BRNS also supports symposia, conferences, seminars and workshops in various areas of science and technology.

#### **SOCIETY FOR MATERIALS CHEMISTRY**

The Society for Materials Chemistry (SMC) was founded in 2007 after successfully conducting the 1<sup>st</sup> International Symposium on Materials Chemistry (ISMC 2006) at BARC, Mumbai, with Chemistry Division, BARC, as its headquarters. SMC is now a registered public trust with more than 1300 life members. The Society provides a common platform to young researchers and active scientists in the area of Materials Chemistry by arranging biennial symposia and National workshops. The 8<sup>th</sup> Interdisciplinary Symposium on Materials Chemistry (ISMC 2020) was held at BARC, Mumbai during June 2021 (online). The 9<sup>th</sup> symposium in this series (ISMC 2022) is now being co-organised by SMC with the financial support from BRNS. We do hope for further enrichment of strength and activities of SMC by arranging workshops, bringing out newsletters, bulletins, etc.

#### **MUMBAI CITY**

**Mumbai**, previously known as Bombay, is a major metropolitan city, the state capital of **Maharashtra** and also the economic capital of **India**. It has historically evolved out of a group of seven islands in the Arabian Sea which lies off the northern Konkan coast on the west of **Maharashtra**. Bombay, which the king of Portugal gave as a dowry to Charles-II of England in 1661, has grown from marshy fishing village to a global cosmopolitan city. Today, it is inhabited by about 21 million people from all over the country. Mumbai's climate is warm and humid for most part of the year. The sky remains clear during November to February with temperatures generally within 15 to 25 degree Celsius. Lighter clothing suits with the weather.

#### **Tourist attractions**

The Asiatic Society of Mumbai, Bombay Natural History Museum, Bombay Stock Exchange, Elephanta Caves, Film City, Gateway of India, Haji Ali Dargah, Jehangir Art Gallery, Kanheri Caves, Marine Drive (earlier Queen's Necklace), Chowpatty Beach, Nehru Planetarium, ISKCON Temple, Vihar Lake, Chhatrapati Shivaji Maharaj Vastu Sangrahalaya (formerly Prince of Wales Museum), Sanjay Gandhi National Park (formerly Borivali National Park), CST (formerly Victoria Terminus) and Bandra-Worli Sea Link.

#### People, Art, Culture and Industry

A resident of Mumbai is called a *Mumbaikar*, *Mumbaite* or *Bombayite*. Life of an average Mumbaikar is very fast-paced. Mumbai is the birthplace of Indian cinema, with the oldest film made here in the early 20<sup>th</sup> century. The city also has a thriving theatrical tradition in Marathi, Hindi, Urdu, English and other regional languages. Contemporary art is well-represented in both government funded art spaces and private commercial galleries. The government-funded art galleries include The Jehangir Art Gallery and The National Gallery of Modern Art. Built in 1833, the Asiatic Society of Mumbai is the oldest public library in the city. Being a cosmopolitan city both Western and Indian festivals are celebrated with great fanfare by residents of all communities and religions. Diwali, Holi, Christmas, Navratri, Good Friday, Eid, Dussera, Moharram, Ganesh Chaturthi, and Maha Shivratri are some of the most popular festivals in the city. Mumbai has a vast array of different industries which include pharmaceuticals, construction, engineering, metals, silks, glassware, printing, plastics, bikes and film. However, textiles are still Mumbai's largest industry. It also has a large petroleum industry. Nearly all of India's petroleum is marketed through Mumbai.

#### **Academic & Research Organizations**

There are several academic and research organizations in Mumbai and these include-Bhabha Atomic Research Centre (BARC), Tata Institute of Fundamental Research (TIFR), Indian Institute of Technology, Bombay (IIT, Bombay), Mumbai University, Institute of Chemical Technology (ICT), Tata Institute of Social Sciences, SNDT University, Institute of Science, Homi Bhabha National Institute, Centre for Excellence in Basic Sciences (CEBS), etc.

### Category (e.g. Nuclear Materials, Nanomaterials, etc)

## The Title of the Paper should be in this Format with Each Initial Letter in Capital Case

Author's Name<sup>a</sup>, Author's Name<sup>b</sup> and Author's Name\*

<sup>a</sup>Replace this text with author's affiliations (use complete addresses)

Continue Here

<sup>b</sup>If more than one affiliation is needed, they should be indicated by superscript letters, a, b, c, etc. as shown above.

\* Corresponding author's name should be marked with asterisk (\*) and his/her email i.d., Telephone Number and Fax Number should be provided here

**Abstract:** The abstract of the work should summarize the highlight of work not more than 150 words. The text itself should be italic and justified. The text should be typed in single columns in Times New Roman (font size 12) with single spacing. Enough scientific information about the work should be reflected. Papers with insufficient information or improper format may lead to rejection.

#### **Introduction:**

The text itself should be justified. Leave one space between paragraphs. The text should be typed in single columns in Times New Roman (font size 12) with single spacing. Introduction and experimental section should be kept to a minimum and more emphasis should be placed on salient results of work. Enough scientific information about the work should be reflected complete utilization of one-page space. Papers with insufficient information or improper format may lead to rejection.

#### **Experimental Details:**

The text itself should be justified. Leave one space between the paragraphs. The text should be typed in single columns in Times New Roman (font size 12) with single spacing.

#### **Result and Discussion:**

The text itself should be justified. Leave one space between the paragraphs. The text should be typed in single columns in Times New Roman (font size 12) with single spacing. The authors should ensure to provide figures with good resolution (resolution 300 dpi or more). Figure and table caption should be in Times New Roman 11 font. Both caption and table centre aligned w. r. t. the page. Enough scientific information about the work should be reflected in the text and the space of one page should be completely utilised. Papers with insufficient information or improper format may lead to rejection.

Table-Caption in 11 fonts

Column-1	Column-2
Row-1	Row-1
Row-2	Row-2

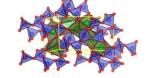


Figure-caption-in 11 fonts

#### **Conclusion:**

The text itself should be justified. The text should be typed in single columns in Times New Roman (font size 12) with single spacing.

#### **References:**

References are to be indicated by square brackets in the text (e.g. [1]), and given in the format shown below using "Times New Roman" font (11 pt). Leave one space between the text and references. Papers with insufficient information or improper format may lead to rejection.

1. A. First, B. Second and C. Third, *Journal*, 12 (**2007**) 345.

It is mandatory to utilize Full One Page for the paper.

PASSPORT DETAILS REQUIRED FROM OVERSEAS PARTICIPANTS					
Full Name:					
Date of Birth:					
Place of Birth:					
Father's/Husband's Name:					
Designation & Affiliation:					
Nationality:					
Passport Number*:					
Date & Place of Issue:					
Passport Issuing Authority :					
Expiry Date of Passport:					
Present Address:					
Permanent Address:					
Γelephone : (O) (R)			FAX		
Email:	4				
Date:		Signature:			
To					
Dr. (Smt.) M. R. Pai Secretary, ISMC-2022 Chemistry Division, BARC, Trombay, Mumbai-400 085, Telephone: +91-22-2559 225 Email: mrinalr@barc.gov.in	India 88 (O)	Dr. P. Sharma Joint Secretary, ISMC-2022 Chemistry Division, BARC, Trombay, Mumbai-400 085, India Telephone: +91-22-2559 3663 (O) Email: pramod@barc.gov.in			

<sup>\*</sup>Overseas participants may note that a Business VISA is required to attend the conference. Tourist VISA holders are not permitted to enter the conference venue.