



EPSRC
Engineering and Physical Sciences
Research Council

Indo-UK International Workshop

"SCHOOL ON GLASS IN NUCLEAR EXTREMES"

(SGNE-2023)

Nov 27 - 30, 2023

DAE Convention Centre, Mumbai, India

Local Organizers:

Nuclear Recycle Group and Chemical Engineering Group
Bhabha Atomic Research Centre
Trombay, Mumbai – 400085



<https://sites.google.com/view/sgne>



2023sgne@gmail.com

SCHOOL ON GLASS IN NUCLEAR EXTREMES

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Background

Department of Atomic Energy (DAE), India and the Engineering and Physical Sciences Research Council (EPSRC), UK are jointly working under the Indo-UK Civil Nuclear Programme. One of the programme's main objectives is to bring together a large team of researchers from both countries to develop improved predictability of the near and long-term performance of radioactive waste glasses and to mature alternative manufacturing technologies via robust experimental and computational tools. Notably, glasses with radioactive species will experience chemical and structural modifications due to radiation and interaction with groundwater. Designing glasses for the immobilization of waste thus requires an understanding of glass science, phase stability during large-scale fabrication, radiation effects and groundwater leaching.

As a part of the programme, a four-day Indo-UK International Workshop "School on Glass in Nuclear Extremes (SGNE-2023)" is being organised jointly by Nuclear Recycle Group and Chemical Engineering Group, Bhabha Atomic Research Centre, India and EPSRC, UK. The School on Glass in Nuclear Extremes aims teaching advanced but fundamental topics associated with glass in a nuclear context. Lectures will be delivered by leading scientists from across the country and UK, and attended by large numbers of scientists, professionals and research students.

Objectives

- Promoting exchange of scientific information between India & UK through projects and programmes
- Providing opportunities to young researchers to interact with the experts of glass science and develop a better understanding on the glasses of nuclear extremes and modern simulation techniques

Topics

1. Introduction to glass science
2. Design and phase stability of complex glasses
3. Characterisation of glasses (Physicochemical & structural)
4. Radiation damage in nuclear glasses
5. Methods and characterisation techniques to study glass leaching
6. Advanced modelling for simulating radiation effects, chemical durability and structural properties correlations
7. Large scale fabrication of glasses

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Participants

- Scientists, Academicians, Researchers, and Students (PhD & PDRA) working in the field of glass science, developing technologies for manufacturing nuclear and optical glasses and developing techniques for modelling to simulate glasses are encouraged to participate in the workshop. Participant who wish to present their work is requested to submit a one page abstract by email to Secretary, SGNE.

Registration

- All participants are requested to register in advance by filling the Google form for participation or send the duly filled form through email (2023sgne@gmail.com).
- Participant has to pay the registration fee by online payment or through demand draft, drawn in favour of "**Society for Atomistic and Continuum Modeling**"
- Name of the Bank : State Bank of India
- Branch name : BARC, Mumbai (Branch code : 01268)
- Account number : **41974598642**
- IFSC code (INDIA) : SBIN0001268
- Registration fee : INR 2000/-
- No Registration fee for BARC delegates
- **Last date of registration : 10 November 2023**

Accommodation

- Accommodation for the delegates will be arranged in Guest Houses at Anushaktinagar or hotels in Chembur/Vashi area. Tariff for guest house is around INR 1500/- per day, on twin sharing basis.
- Arrangements for stay can be made on request and on payment basis. Request for accommodation may please be sent by filling the Google form "Accommodation request" or by email to
Shri Sumnesh Wadhwa
Convener, Accommodation & Transport Committee
email: swadhwa@barc.gov.in ; 2023sgne@gmail.com

Travel assistance

- All delegates are requested to make their own travel arrangements. However, Airport pickup/drop arrangement for overseas delegates can be made on request.
- Financial assistance for second class train fare may be provided to a limited number of students /scholars in case their parent institution is not able to sponsor the same. A request for financial assistance should be forwarded through Head of the institution to Secretary, SGNE-2023.

SCHOOL ON GLASS IN NUCLEAR EXTREMES

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International Advisory Committee

- Shri Vivek Bhasin, Director, BARC, India
- Sir Robin W. Grimes, Imperial College, UK
- Dr. A.K. Tyagi, Director, CG, BARC
- Shri Umesh Dani, CE, NRB, BARC
- Smt Smitha Manohar, Director, NRG, BARC
- Shri K.T. Shenoy, Director, ChEG, BARC
- Dr. R. Tewari, Asso. Director, Materials Group, BARC
- Dr. Kitheri Joseph, Asso. Director, MFRG/MC&MFCG, IGCAR
- Dr. Arun Kumar Nayak, NCPW, DAE
- Prof. Maulik Patel, UK
- Shri Sunil Ganju, ICPD, NCPW, DAE
- Dr. Ruth Edge, UK
- Dr. G. Sugilal, BARC

Local Organising Committee

- Smt. Smitha Manohar, Chairperson, SGNE
- Shri K.T. Shenoy, Co-Chairman, SGNE
- Dr. G. Sugilal, Convener, SGNE2023
- Shri Sanjay Kumar
- Shri Kalyan Bhanja
- Shri A.K. Adak
- Dr. S. Mukhopadhyay
- Shri P.D. Maniyar
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- Dr. R. Raja Madhavan
- Dr. Sharat Chandra
- Smt Nilima Singh Tomar, Convener, Venue Management & Catering
- Dr. Sk. Musharaf Ali, Co-Convener SGNE2023
- Shri Sumnesh Wadhwa, Convener, Transport & Accommodation
- Shri Keyur Pancholi, Convener, Reception
- Dr. D. Banerjee, Secretary, SGNE2023
- Dr. Pooja Sahu, Joint Secretary, SGNE2023

Address for Correspondence

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VENUE



SGNE-2023

- The venue, DAE Convention Centre, is a state-of – the-art convention centre facility located in the beautiful residential township of BARC surrounded by lush greenery and picturesque views.
- The DAE Convention Centre is approximately 20 km away from the Chhatrapati Shivaji Maharaj International Airport, Mumbai. Railway terminals like LTT, CSMT, Bandra, Mumbai Central are within 10-20 km from the venue. The nearest local railway station is Mankhurd Station on the harbor line, which is approximately 2 km from the venue.
- The Convention Centre has three auditoriums, exhibition halls and ample dining space. The main auditorium has seating capacity of 1000 and each of the two mini auditoriums can accommodate 250 people. All auditoriums are well-furnished, air-conditioned and equipped with all modern amenities.
- The Convention Centre has a guest house facility within the venue and two guest houses of BARC nearby, which can accommodate a limited number of conference participants.
- Please visit our web page for more information : <https://sites.google.com/view/sgne>



Registration form



Accommodation Request form