

Ref: CEBS/Rolling Advt. No. 01/165/2024

April 19, 2024

## Advertisement for the post of Research Associates (RAs) in UM-DAE Centre for Excellence in Basic Sciences

### Rolling advertisement

University of Mumbai-Department of Atomic Energy Centre for Excellence in Basic Sciences (UM-DAE CEBS) has been established on the Kalina campus of the University of Mumbai to impart high quality education in Basic Sciences after the 10+2 (or equivalent) level of schooling, in a vibrant academic ambiance by distinguished teachers and scientists.

**CEBS invites applications from eligible candidates for the position of Research Associates (RA) in Chemistry, Mathematics and Physics. The specifications are as follows:**

#### School of Chemical Sciences

**Area:** Ultrafast spectroscopy of luminescent materials using femtosecond time-resolved absorption and fluorescence spectroscopic techniques

OR

Main Group Inorganic Chemistry/Organometallic Chemistry/Material Sciences/Machine Learning and Artificial Intelligence in Chemistry

**Essential Qualifications:** Ph.D. in Chemistry or Physics. The candidate must have been awarded the Ph.D. degree or submitted Ph. D. thesis to any reputed organization.

**Experience:** Candidates should have extensive work experience in the above areas and should have published at least two papers in peer reviewed international journals.

**Desirable:** The candidate should be able to teach in the subject areas e.g., photochemistry, molecular spectroscopy, inorganic chemistry, organometallic chemistry and machine learning etc. to five-year integrated M.Sc. students.

**No. of Post: 01**

#### School of Mathematical Sciences

**Area:** Algebra, Topology, Analysis or Discrete Mathematics

**Essential Qualifications:** Ph. D. in Mathematics with a strong background in atleast one of the subjects viz., Algebra, Topology, Analysis or Discrete Mathematics

**No. of Post: 03**

## School of Physical Sciences

(a) **Area:** Theoretical Nuclear Physics/Mathematical Physics/Computational Plasma Physics  
**Broad Area:** 1) Structure and reaction properties of exotic nuclei

OR

2) Pseudo-Hermitian Quantum Mechanics in infinite dimensional Hilbert spaces and non-linear Schrodinger equation etc.

OR

3) Development of computational tools for intense laser-plasma interaction

**Essential Qualification:** 1) Ph.D. in Physics (Theoretical Nuclear physics)/Applied Mathematics/ Computational Plasma Physics/ Engineering Sciences) with at least three publications in peer-reviewed research journals (of which at least one should be as first author).

**No. of Post: 01**

(b) **Area:** Experimental Condensed Matter Physics

**Broad Area:** Quantum Materials and quantum sensing– in particular low dimensional superconductivity or molecular electronics or quantum qubit applications of color centres in single crystal diamond

**Essential Qualification:** Ph.D. in Physics (Experimental condensed matter Physics / Materials Science / Device Physics) with at least three publications in peer-reviewed research journals (of which at least one should be as first author).

**No. of Post: 01**

### Other Terms and Conditions:

**Age:** The candidate should not be more than 32 years as on 31<sup>st</sup> December, 2023.

**Emoluments:** Commensurate with post-Ph.D. research experience of the candidate, in the range of Rs. 58,000 - Rs. 67,000 (+ HRA as per rule) per month.

**Tenure:** The position is offered on an annually renewable basis (subject to successful review), and is tenable up to maximum three years.

**Duties and Responsibilities:** Candidate will be working at CEBS and will also need to teach at least one course and/or conduct laboratory sessions at CEBS as part of his/her duties.

Application form in the prescribed format (download from <https://www.cbs.ac.in/announcements/recruitment>) along with detailed curriculum vitae (CV), copies of degree certificates and should be submitted electronically through e-mail to [registrar@cbs.ac.in](mailto:registrar@cbs.ac.in)

Note that **NO TA/DA** will be paid for the candidates short-listed for the interview. Candidates are encouraged to appear for interview in person, but interviews can also be held online.