INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE (IACS)

2A and 2B Raja S. C. Mullick Road, Kolkata, INDIA-700032

Advertisement No: DA/TRC/2024/02 **Date: 23.12.2024**

Applications are invited from Indian Nationals for the post of **Research Associate (RA)** in different research groups (shown in Page 2-3), affiliated to the Technical Research Centre (TRC), IACS, Kolkata, for conducting Translational research as per the mandate of the TRC.

Tenure: This position is temporary (initially till **30.04.2025**, and can be extended till **31.03.2026**, subject to continuation of the project, availability of fund in the project account and recommendation of the research advisory committee at the end of the initial tenure for a given candidate). Candidates will have no right to claim (explicit or implicit) any post in the institute.

Essential qualification: PhD in Science. Candidates who have submitted PhD thesis, but yet to receive the degree are also eligible. But if selected, they will be receiving reduced fellowship (equivalent to SRF position) until the PhD degree certificate is submitted.

Desired qualification and research experience: Desired past research expertise for individual post-codes is appended below.

Fellowship: As per rules of IACS

Last date for receiving application: **02-January-2025** (16.00 hrs, IST)

Selection procedure: Applications will be shortlisted on the basis of past academic record, research publications, match of the past research expertise with specific requirements for a given post and other academic parameters, as decided by the selection committee. Only shortlisted candidates will be communicated via their registered email and called for an interview for the final selection. Merely satisfying the essential qualification does not guarantee that a candidate will be shortlisted for interview. IACS holds the full right of choosing a candidate and even not selecting any, in case suitable applications are not received. A candidate applying for a given post may be considered for another post, if found more suitable by the selection committee. Based on the past research experience and academic background, the selection committee holds the right to recommend the placement of the selected candidates as RA-I or RA-II or RA-III.

Date of Interview: **Tentatively on January 07, 2025**. Shortlisted candidates will be informed the schedule through email.

Method of application: Filled in (type-written) Application Form (attached at the end of this document, page 4-5) should be sent as a PDF file through email to dofficeab@iacs.res.in latest by **16.00 hrs, 02-January-2025**. Subject line of the email should read as: "**Application for Research Associate-TRC**". No additional documents should be sent. Applications/Resume sent in any other format will not be considered for selection.

(REGISTRAR, IACS)

POST CODES WITH RELEVANT DETAIL

Sl. No.	POST CODE	Name of the PI	Desired Qualification/Expertise	No. of post
1	**WP1-1**	Amitava Patra	Ultrafast spectroscopy on perovskite hybrid materials for light harvesting	**2**
2	**WP1-2**	Devajyoti Mukherjee	A candidate having proven expertise via peer reviewed publications in the field of Experimental Condensed Matter Physics is desirable. The candidate should have expertise in the fabrication of thin-films and heterostructures of magnetic, ferroelectric or multiferroic materials using sputtering or pulsed laser deposition techniques. He/she should have hands-on experience in structural, morphological and wide range of property characterization techniques for electrical, magnetic, dielectric, ferroelectric, piezoelectric and related alternative energy applications. Knowing how to fabricate nanoscale devices and to operate high precision electrical equipment and high vacuum chambers will be desired. Having basic computational skills in LabView are plus but optional for applying in this position.	**1**
3	**WP1-3**	Indra Dasgupta	Experience in first principles electronic structure calculations and/or machine learning; Strongly Correlated Systems.	**2**
4	**WP1-4**	Sugata Ray	Experience in experimental condensed matter physics works is desirable. Knowledge and experience in various different synthesis methods of materials (solid state, hydrothermal/solvothermal, single crystal growth) will be required, along with expertise in characterization techniques (XRD, different microscopy, etc). Past experience of working with magnetic, dielectric, topological materials, and knowledge on magnetic, transport, dielectric, Hall measurements would be highly appreciated. Particular interest in f-block magnetism and the interaction between f-block and d-block magnetic responses will be desirable.	**1**
5	**WP1-5**	Subhadeep Datta	PhD in Experimental Condensed Matter Physics/Material Science/Electronics/Physical Chemistry. Expertise in device fabrication and lithography, charge transport in low-dimensional systems	**1**
6	**WP1-6**	Subhadeep Datta	PhD in Experimental Condensed Matter Physics/Material Science/Electronics/Physical Chemistry. Expertise in Flexible electronics, synthesis of polymers, molecular gels	**1**
7	**WP2-1**	K D Mallikarjuna Rao	Ph.D. in Chemistry or Physics (Experimental) from a recognized institute/university; Expertise in synthesizing 2D materials and nanostructures with organic/inorganic perovskites; Proficiency in semiconductor device fabrication and thin-film deposition techniques; Skilled in XRD, FESEM, PL, TEM characterizations; Experience in optical and electrical characterization of thin films.; Familiarity with advanced optoelectronic device fabrication methods	**1**
8	**WP2-2**	Anuja Datta	Past research expertise in the characterization and measurement of functional properties in electroceramics for energy and health applications. Skills in synthesis, gorwth and device preparation techniques, structural analysis (Rietveld), and finite elemental simulation knowledge preferred.	**1**
9	**WP2-3**	Narayan Pradhan	Expertise in nanomaterials synthesis, particularly in designing and fabricating novel nanostructures. The ideal candidate should have experience analyzing optical properties, steady-state and time-resolved spectroscopy, and a strong background in photo- and electrochemical applications such as HER, OER, CO2 reduction, solar cells, and LEDs. Proficiency in crystal analysis using XRD and TEM is highly desirable.	**1**
10	**WP2-4**	Somobrata Acharya	PhD in the area of Solid-State Physics, thin film characterization	**1**
11	**WP2-5**	Somobrata Acharya	PhD in Chemistry with expertise in nanocrystal synthesis	**1**

12	**WP3-1**	Siddhartha S Jana	BSc-MSc in any branch of life sciences, PhD in microbiology with expertise in working with bacteria, microbes	**1**
13	**WP3-2**	Anindita Das	A candidate should have a Ph.D. degree in any field of Organic/Supramolecular/Polymer Chemistry/Biochemistry from a recognized University/Institute with overall good academic record and impressive publication list. Candidates having prior experience in polymer synthesis /supramolecular soft materials and their photophysics/ organic-inorganic hybrid nanomaterials. The candidate having first-hand experience in multi-step organic synthesis, cell culture, bioimaging, antibacterial and biophysical studies, and crystal structure analysis will be preferred.	**1**
14	**WP3-3**	Nikhil R. Jana	Experience in nanoparticle synthesis/surface chemistry/functionalization, antibacterial effect of piezoelectric nanoparticles, piezoelectric film-based antibacterial materials.	**1**
15	**WP3-4**	Suhrit Ghosh	Expertise in Polymer Synthesis, Self-Assembly and Cell culture for in vitro biological studies related to drug delivery and antimicrobial applications.	**1**
16	**WP3-5**	Somobrata Acharya	Candidates should hold a Ph.D. in Chemistry, Physics, Materials Science, Photonics, or a related field. Expertise in synthesizing organic conjugated chromophores and investigating their optoelectronic properties. A strong understanding of photophysical and charge transport properties is highly desirable. Experience with organic lasers and custom-built optical setups is a significant advantage. Excellent communication, collaboration, and problem-solving skills are required.	**1**
17	**WP3-6**	Somobrata Acharya	The candidate should possess extensive expertise in synthesizing novel supramolecular systems with a focus on amphiphilic self-assembly, dynamic nanovesicles, and chiral gel formulations. The work should demonstrate proficiency in bio-medical applications, including targeted gene delivery, drug delivery, cellular imaging, and antibacterial systems, supported by a strong foundation in molecular design, characterization techniques, and in vitro/in vivo evaluation.	**1**
18	**WP4-1**	Ayan Datta	Computational Design of Materials for Energy	**1**
19	**WP4-2**	Jyotirmayee Dash	(a) An average mark of 60% in B.Sc. and M.Sc. degree along with a good overall academic record. (b) NET qualified with Ph.D. degree in Biochemistry/Life Sciences (b) a minimum two years post-doctoral experience in Chemical Biology and Nucleic acid chemistry in infectious disease. Preference will be given to candidates having working experience in screening and studying the biological effects of small molecules in host-pathogen model.	**1**
20	**WP4-3**	Surajit Sinha	Synthesis and delivery of oligonucleotides and synthesis of natural ibogaine and ibogamine	**1**
21	**WP4-4**	Pradyut Ghosh	A candidate should have Ph.D. degree in chemistry/chemical sciences, with research experience supported by good publications in peer-reviewed journals. Preference will be given to candidates with research experience in supramolecular chemistry for recognition and extraction of anions from water with some knowledge in DFT calculations.	**1**
22	**WP4-5**	Tapan Kanti Paine	PhD degree in Chemistry with experience in inorganic chemistry/bioinspired catalysis. Knowledge in synthetic inorganic chemistry, structural, spectroscopic techniques, and reactivity studies is Desired.	**1**
23	**WP4-6**	Shinto Varghese	Candidates should possess a Ph.D. in Physics, Chemistry, Materials Science, Electrical Engineering, or a related field. Desired qualifications include expertise in the fabrication and characterization of optoelectronic devices (FETs, OLEDs, photodetectors, and/or memory devices), hands-on experience with relevant characterization techniques (e.g., electrical, optical, spectroscopic), and a strong understanding of device physics and materials science principles. Experience working with conjugated chromophores as active materials is highly desirable. Excellent communication, collaboration, and problem-solving skills are required.	**1**
24	**WP4-7**	Shinto Varghese	Candidates should hold a Ph.D. in Chemistry, Physics, Materials Science, Photonics, or a related field. Desired qualifications include expertise in synthesizing organic conjugated chromophores and investigating their optoelectronic properties. A strong understanding of photophysical and charge transport properties is highly desirable. Experience with organic lasers and custom-built optical setups is a significant advantage. Excellent communication, collaboration, and problem-solving skills are required.	**1**

APPLICATION FORM

For the Post of Research Associate (RA), TRC, IACS, Kolkata

1. **Advertisement Number:**
2. **Post (maximum 2) applied for: (Check the advertisement for post CODES and PIs)**

	Post CODE	**Name of the PI**
Preference 1		
Preference 2		

3. **Candidate's personal information**

Name			
Current affiliation			
Date of Birth		**Gender**	
Address			
Email			
Mobile number			

4. **Academic Qualifications (Class X onward):**

Degree	**Subject(s)**	**Class/ CGPA**	**Year**	**University/Board**

5. **Information on the PhD Thesis**:

Thesis title	
Thesis supervisor	
Year degree received*	
University/ Institute	

*if degree yet to be received, write accordingly

6. **Fellowship/ Award/ Other Recognitions (If any):**
7. **Work/ research experience (post PhD) in reverse chronological order:**

8. **Complete list of publications** (Authors, title of the paper, volume, issue, full page numbers should be mentioned. Applicant's name should be underlined)
9. **A brief description of the past research experience and research skills (maximum 500 words with space):**
10. **Other relevant information (if any)**

Signature of the candidate with date