2020-04 Recruitment Announcement for Research Positions at the IBS Center for Multidimensional Carbon Materials

Postdoctoral Research Associate Positions at the IBS Center for Multidimensional Carbon Materials

The Institute for Basic Science (IBS) is a national research institute established in accordance with Article 14 of the "Special Act on Establishment of and Support for International Science and Business Belts". IBS aims to discover creative knowledge and secure original technologies through world-class basic science research. The IBS Center for Multidimensional Carbon Materials invites creative and dynamic candidates who will help us to achieve our goals.

□ Recruitment Details

Center (Workplace)	Work Category	Area	Required Qualifications	No. of Openings
Center for Multidimensional Carbon Materials (UNIST, Ulsan)	Postdoctoral Research Associate	-Carbon nanotubes, zeolites, Advanced Transmission Electron Microscopy, Zeolite derived carbons, Diamanes	- Degree: Doctoral Degree (obtained in recent 5 years) - Major: Chemical Engineering - Preference: Doctoral experience in synthesis and study of carbon nanotubes and zeolites, and thus be well positioned for new studies of zeolite derived carbons. Having a strong background in aberration-corrected TEM of zeolites and nanotubes; experience with a wide variety of experimental methods used for study of carbon nanotubes and zeolites, and strong capabilities with respect to HRTEM, HRSTEM, EELS, EDS, DF imaging, diffraction, and simulation, is highly desired (1) Please refer to the below for the detailed required qualifications	1
		- Carbon materials, Electrochemical synthesis, Metal carbides, Liquid metals, Molten salts	- Degree: Doctoral Degree (obtained in recent 5 years) - Major: Metallurgy and/or Materials Science - Preference: Doctoral experience in study of carbon materials, metal-related materials and electrochemistry, to thus be well positioned for electrosynthesis of novel carbon materials. Having a strong background in electrochemistry, liquid metal studies, molten salt studies, metal alloying and synthesis of carbon materials; experience with a wide variety of experimental methods used for synthesis and study of metal carbide-related carbon materials, and strong capabilities with respect to electrochemical characterization, SEM, EDS, Raman spectroscopy and X-ray diffraction, is highly desired. (2) Please refer to the below for the detailed required qualifications	1

(1) We seek candidates for a postdoctoral research associate position that tackles outstanding challenges in zeolite derived carbons (ZDCs), carbon nanotubes, and diamane-like materials, and other projects related to novel carbon materials. The position will entail the synthesis and characterization of ZDCs and of new studies involving carbon nanotubes and diamanes. As such, the candidate should have deep experience with: (1) A broad range of methods of synthesizing and studying carbon nanotubes and zeolites, (2) a broad range of aberration-corrected TEM and STEM methods (3) atomic resolution HRTEM and HRSTEM imaging at low kV; (4) EELS and EDS, (5) TEM and STEM image simulation,

6) various types of spectroscopies and methods of measuring properties of zeolites and carbon nanotubes, (7) experience analyzing periodic nanoporous structures using HRTEM, BET, and other methods. Ideal candidates will (i) be fluent in English, (ii) have recently received a Ph.D., (iii) have experience writing manuscripts, (iv) exhibit a strong motivation to do research in pioneering areas and to delve deeply into fundamental scientific issues, including as exemplified during his/her Ph.D. studies, (v) have experience and also a desire to mentor junior members of the team.

(2) We seek candidates for a postdoctoral fellow position to tackle outstanding challenges in novel carbon materials and other related projects. Carbon synthesis based on electrochemical methods and systems, liquid metals, metal carbides, and related methods and approaches. Candidates should thus have deep experience with: (1) study of metal carbide-derived carbon materials and a broad range of methods of synthesizing carbon materials; (2) study of electrochemical behavior of eutectic systems; (3) analysis and use of phase diagrams; (4) electrochemical synthesis of carbon; (5) high temperature electrochemical reactions; and (6) various types of spectroscopies and methods to characterize the properties of carbon materials. Ideal candidates will (i) be fluent in English, (ii) have recently received a Ph.D., (iii) have experience writing manuscripts, (iv) exhibit a strong motivation to do research in pioneering areas and to delve deeply into fundamental scientific issues, including as exemplified during his/her Ph.D. studies, (v) have experience and also a desire to mentor junior members of the team.

▸ Postdoctoral Research Associate: Those who obtained a PhD degree in recent 5 years. Employment term is under maximum three years.

□ Qualifications

[General Qualifications]

- Those who are qualified under the “State Public Officials Act”
  (Refer to the disqualifying factors listed in Article 33.)
- Those who completed mandatory military service or exempt from such service, and permitted to travel abroad

[Preferences]

- Additional 5 points for those who submit supporting documents proving they are persons with disabilities or eligibility for patriot & veteran benefits under relevant laws and decrees at the document screening stage
- Female scientists and engineers
- Degrees and certificates in relevant areas
- Fluency in foreign languages

□ Candidate Screening

Candidate Screening Method		Review Criteria	Required Documents
Combined	Document Screening	– Relevancy to the recruitment area – Excellence of research achievements – Full transcripts of university and higher education – Development potential	– CV and list of research achievements – Consent form
	Interview	– Expertise in the recruitment area – Attitudes and adaptability to organizational culture – Presentation skills and diligence – Development potential	

▸ Candidates who receive a minimum average point of 80 points or more at the document screening stage will be considered for the interview screening stages. The final candidate shall be selected based on the highest average point of 80 points or more at the interview stage, the number of final candidates will not exceed the number of opening. (*The average point will be drawn from all review panel members*.)

□ Application Submission and Period

○ Application Submission: Submit required documents stated above via e-mail (inelee@ibs.re.kr)

○ Period: April 21 (Tues), 2020 ~ 23:00 (KST) May 5 (Tues), 2020

○ Please specify which area you are applying when submitting your application

□ Additional Information

○ Applicants take full responsibility for any consequences resulting from omissions and errors found in submitted documents, not submitting required documents, etc. If any information is proven false, the job offer will be withdrawn.

○ If selected candidates are disqualified through a background check or a recruitment-related physical examination, the job offer will be withdrawn.

○ If selected candidates are found dismissed according to the Article 82 of the Act on the Prevention of Corruption and the Establishment and Management of the Anti-Corruption and Civil Rights Commission, the appointment will be withdrawn.

○ Submitted documents may be returned when such requests are made within three months from the announcement of recruitment results according to the Article 4 of the Enforcement Decree of the Fair Hiring Procedure Act.

○ No candidates may be hired if all candidates are found unsuitable during the screening stages.

- If hired, the work level, annual salary, etc. will comply with IBS standards.
- Expected date of appointment is/or after July 1, 2020. (This is subject to change)
- Workplace: IBS Center for Multidimensional Carbon Materials, Ulsan
- Inquiries: Responsible staff at the IBS Center for Multidimensional Carbon Materials
  (Tel.: 052-217-5756; fax: 052-217-5759; e-mail: inelee@ibs.re.kr)