

## IMSS24-5 Postdoctoral Fellow

Job No.	IMSS24-5
Title	Postdoctoral Fellow
Number of Job Opening	A few persons
Inst./ Lab.	Center for Integrative Quantum Beam Science (CIQuS), IMSS
Term	1 year. Contract might be renewed in each Japanese fiscal year by additional 2 years at maximum. <b>*The contract update is determined by the following: (1) Work performance, Work attitude (2) Ability of workers (3) Amount of work at the expiration contract period (4) The need for business (5) Situation of budget</b>
Start of the term	As early as possible after the decision of successful candidate
Appl. Deadline	Application due date (to reach KEK) is noon on Tuesday August 20, 2024 (JST)

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### Job Description

The Institute of Materials Structure Science (IMSS), one of the Inter-University Research Institutes, promotes advanced and multiple use of four types of quantum beams, synchrotron radiation, neutrons, muons and slow positrons, in materials and life sciences.

The successful candidate will be actively involved in one of the scientific programs at Center for Integrative Quantum Beam Science (CIQuS), and are expected to promote advanced materials science research using various quantum beams, and to develop experimental techniques for quantum beam applications. They will principally belong to the CIQuS, but possibly to other Divisions in IMSS depending on their detailed jobs and skills. The workplace is KEK Tsukuba or Tokai campus.

The more details of the job description are shown here.

<https://www2.kek.jp/imss/eng/employment/IMSS24-5-e.html>

### Qualification

Holding a doctoral degree is mandatory when they are employed.

### Method of Selection

Applicants on the short list are requested to come to KEK for an interview in principle.

The date of the interview: TBA. Only the applicants who passed our documentary screening will be informed of the details of the interview.

### Salary

Base annual salary: 3,960,000yen

Salary payment method: The above base annual salary is paid monthly. Various allowances will be determined according to the KEK rules in addition.

### Working Hours

In principle discretionary work system for professional work is applied and working hours will be deemed as 7 hours and 45 minutes per day.

### Please submit (A4 size paper (29.7cm x 21cm or similar size))

1) Curriculum vitae (Download the designated form of KEK from [Designated form of KEK](#))

\* Please be sure to write the job number IMSS24-5, and the possible date you would be able to start the job at the Institute of Materials Structure Science. Please write your birth date as well.

\* If you apply for more than one job openings in KEK, please indicate all the job numbers you apply for and your priorities in your CV.

2) Research experience: The selected publications whose reprints are attached to the application document should be explicitly described with their significance.

3) Publication list: this should be prepared in the following format. Items not applicable may be omitted.

1. List of peer-reviewed original articles

-Provide names of all authors in principle in the same order as in the article and emphasize own name with underline in each reference.

-Each article on the list should be numbered, **and the selected publications should be indicated.**

-Authors, title, journal name, volume number, year and page numbers (first-last) must be included. Order of these items may be changed.

2. List of review articles and books

3. List of other articles (non-peer reviewed articles, conference proceedings, bulletins)

4. List of invited lectures in international conferences/meetings.

5. Miscellaneous, supportive information such as research grants and awards received.

4) Research plan.

5) Reprints of selected publications (about 3 separate papers)

6) Recommendation or reference letter(s) from those referred in CV

(Recommendation or reference letter(s) must be addressed to Prof. Dr. FUNAMORI Nobumasa, Director of IMSS, *Attn.*: Personnel Affairs Unit 1 (Jinji1), KEK.)

### How to submit

1) Application documents

\* Application documents must be submitted by using our Web system.

\* Since we will issue your own password, please send an e-mail to [jinji1@ml.post.kek.jp](mailto:jinji1@ml.post.kek.jp).

(Please write "IMSS24-5" in the email subject and write your name, current position and phone number in the body of the email.)

\* We accept only PDF files.

\* If you cannot use our web system, please contact us by e-mail.

\* We cannot accept submissions by e-mail attached with application documents.

2) Recommendation or reference letter(s)

\* We accept PDF file(s) of recommendation or reference letter(s) to [jinji1@ml.post.kek.jp](mailto:jinji1@ml.post.kek.jp) by email.

(Please write "Recommendation for "IMSS24-5" to the email subject.)

\* We accept paper of recommendation or reference letter(s) by post mail as well.

Post mail to: Personnel Affairs Unit 1, KEK

1-1 Oho, Tsukuba, Ibaraki 305-0801, Japan

(Attention) We may not be able to receive mails from a free e-mail account.

If there is no reply from us within a few days, please try a different email address or apply by post mail.

**Before submitting application documents, please contact**

Prof. AMEMIYA, Kenta, Head of Center for Integrative Quantum Beam Science, Institute of Materials Structure Science, KEK.

E-mail: [kenta.amemiya@kek.jp](mailto:kenta.amemiya@kek.jp) Tel: +81 29-879-6027

**Others**

1) KEK is promoting gender equality. In accordance with the intent of "Basic Act for Gender Equal Society", when the finalists for a position comprise both males and females whose qualifications and merit, including experiences, education, research achievements and social contributions, have been deemed equal, preference will be given to the female candidate.

2) An option for working at home is available to improve work-life balance or to cope with exceptional working environment.

[Go to KEK Job Opportunities](#)

## Details of the job description

The Center for Integrative Quantum Beam Science (CIQuS) promotes following twelve research programs:

1. Multiscale and multimodal structure analysis with quantum beams and informatics
2. SOFt Interface Analysis platform with Multi-Probe; SOFIA-MP
3. Multi-probe observation of surface and interface of spintronics materials toward development of devices with ultra-high-speed operation and ultra-low-power consumption
4. Atomic arrangement and electronic state of functional atomic layered materials
5. Elucidation of principles of functional materials using multi-quantum-beam probes: toward establishment of guidelines for development of next-generation devices
6. Observation of dynamics of catalytic reactions -for encouraging non-active sites to go active-
7. Estimation of the origin of crack initiation sites for structural materials in social infrastructures
8. Visualization of the reaction path in lithium-ion secondary battery
9. Visualization of Dynamic Functionality in ultrafast Photoresponsive Materials
10. Understanding the past history of earth and planet (water, carbon) / environment / resources
11. QBFS, Quantum Beam Food Science
12. Integration of arts and sciences using quantum beams

The successful candidates will be actively involved in one of these research programs and will promote advanced materials science research using multiple quantum beams, as well as development of quantum beam application techniques necessary for such research, in collaboration with staff in IMSS.

We expect they will acquire skills to utilize multiple quantum beams effectively and become researchers who play core role in the field of integrative quantum beam science.