

# 2025 Nuclear Global Internship Job Description

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## 1. Basic Information

- Expected Internship duration: **5-6 months.**

- Internship Area/Topic:

**Radiochemistry, geochemistry, spectroscopy of radionuclides, analytics of radionuclides, geochemical modeling.**

**The general context is related to Nuclear Waste Disposal.**

- Division/Department Placement:

**Institute for Nuclear Waste Disposal (INE)**

**Karlsruhe Institute of Technology (KIT)**

Hermann-von-Helmholtz-Platz 1

76344 Eggenstein-Leopoldshafen

**Germany**

- Supervisor's contact information:

Dr. Marcus Altmaier (will serve as first point of contact. Depending on topic, other colleagues at INE will get involved)

Deputy Director, Head of Radiochemistry Division

Hermann-von-Helmholtz-Platz 1

76344 Eggenstein-Leopoldshafen

Phone: +49 721 608-22592

Mobile: +49 174 1760251

## 2. Responsibilities

### 1) Main Purpose

KIT-INE is offering internships to perform experimental studies and gain hand-on experience within the multifold research field described below. The specific scientific topic and experimental methodology and tool-set for an internship shall be discussed between the student and KIT-INE (plus KONICOE, if desired), depending on the student's interests and options at KIT-INE to ensure good supervision by experienced scientific/technical staff during the specific projected timespan.

### 2) Tasks/ Key Results Expected

KIT-INE research is largely focusing on radiochemical or geochemical studies for nuclear waste disposal. The tasks and expected key results will be located within this frame. Research activities may include, amongst others, experimental investigation of:

- radionuclide solubility (actinides, fission and activation products) in aqueous solutions,
- radionuclide speciation studies and analysis of complex formation processes,
- radionuclide retention experiments on relevant mineral phases, or
- radionuclide transport processes.
- Analytics of radioactive compounds.
- Topics may also include geochemical modeling or radionuclide behavior.

A large set of modern (radio)chemical analytical tools is available to derive molecular level insight and detailed process understanding. An overview on KIT-INE research topics is available at the institute website at [www.ine.kit.edu](http://www.ine.kit.edu).

### 3) Knowledge, Skills and Abilities

- Background in chemistry, radiochemistry, geochemistry, environmental chemistry or comparable fields.
- Good chemical/geochemical laboratory skills.
- First experience working with radionuclides is an advantage but not strictly mandatory.
- Interest in nuclear waste disposal research.
- Excellent English language skills are mandatory.

## 3. Qualifications (Education)

- ☐ (1) Bachelor degree (3<sup>rd</sup> year ☐, 4<sup>th</sup> year ☐)
- ☒ (2) Master degree (or candidate)
- ☒ (3) Ph. D. degree (or candidate)
- ☐ (4) Does NOT matter

#### 4. Required documents

- ☒ Resume / Curriculum Vitae
- ☒ Cover letter
- ☒ Academic transcript
- ☒ Recommendation letter written by academic supervisor
- ☒ English Test score (TOEFL, TOEIC, IELTS, etc.)
- ☒ Others (proof of laboratory skills, potentially provided via academic transcript or by academic supervisor)

#### 5. Is the host organization providing any additional financial support in addition to the funding from KONICOF?

- ☐ Yes
  - The amount of stipend: USD/EUR/CHF \_\_\_\_\_ per month /week
  - Purpose of the stipend: *ex) assist housing, required minimum wage, etc.*
- ☒ No



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