EUROPEAN COMMISSION

JOINT RESEARCH CENTRE

2021-KRU-A5001-FGIV-018632

FG IV Scientist - Exploratory Research Project "Thorium nuclear clock half-life measurement" (THC1/2)

POSITION FOR:
Member of the contract staff FGIV – art. 3b of the Conditions of Employment of Other Servants http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1962R0031:20110101:EN:PDF)

WE ARE:
As the science and knowledge service of the Commission, the mission of DG Joint Research Centre (JRC) is to support EU policies with independent evidence throughout the whole policy cycle.

The JRC is located in 5 Member States (Belgium, Germany, Italy, the Netherlands and Spain). Further information is available at: https://ec.europa.eu/jrc/

The JRC offers a position for a Contract Agent within the Exploratory Research Project "Thorium nuclear clock half-life measurement" (THC1/2). The JRC Exploratory Research Program (ER) is a strategic initiative characterized by ideas that might lead to novel results and qualitatively enrich current JRC scientific work.

The vacancy is within the Directorate for Nuclear Safety & Security. The directorate supports the relevant policy DGs with independent, technical and scientific evidence in the areas of nuclear safety and security. The operational scientific research will take place in the unit Nuclear Science & Applications Unit. The unit's mission is to retain expertise, promote the integration of basic nuclear research at the European level, support the beneficial use of radioisotopes for non-power applications and build the scientific reputation of the directorate as a trustworthy body for policy advice.

Further information is available at: https://ec.europa.eu/jrc/en/research-topic/fundamental-properties-actinide-materials.

The Scientific Development unit is in charge of the overall JRC Exploratory Research Program.

WE PROPOSE:
A position to carry out scientific and technical tasks within the Exploratory Research project "Thorium nuclear clock half-life measurement" (THC1/2) with a special emphasis on radiochemical separation, vacuum ultraviolet optics, experimental data collection and analysis.

The successful candidate will:

- Extract Th-229 by radiochemical separation from a material containing its precursor;
- Design and construct the experimental setup for the Th-229m half-life measurement, including vacuum ultraviolet optics, photomultipliers, amplifiers and signal processing;
- Perform the analysis of collected data and extract experimental quantities and their uncertainties;
- Report to the Project Leader on progress, achievements and potential problems in a timely manner;
- Provide feedback and maintain interactive communication with colleagues;
- Explain the research activities and achievements to third parties, such as scientific communities and the general public;
- Write, publish and present scientific reports, articles and conference papers;
- Provide regular and accurate reports on scientific activities every eight months and a final report.

WE LOOK FOR:
A scientist with the following qualifications:

- A doctoral diploma in nuclear chemistry, radiochemistry or nuclear physics, alternatively completed university studies of at least three years attested by a diploma and at least five years professional experience in one of the aforementioned fields;
- If the candidate is a nuclear chemist or radiochemist, prior knowledge/experience in the area of nuclear physics is an advantage; if the candidate is a nuclear physicist, prior knowledge/experience in the area of nuclear chemistry or radiochemistry is an advantage;
- Prior experience in radiochemical separation, vacuum ultraviolet optics, experimental data collection and/or data analysis is an advantage;
- A strong record of research activities relevant for the post, including publications in international peer-reviewed journals, is an advantage;
- Very good oral and written communication skills in English (B2 or higher) are essential, knowledge of other languages is an advantage.

In addition, the following competences will be considered as an advantage:

- Ability to work in a team and in a multi-cultural environment;
- The candidate is expected to be creative and to work independently.

EMPLOYMENT CONTRACT DURATION:
24 months employment contract for the Exploratory Research project "Thorium nuclear clock half-life measurement" (THC1/2).

Employment contracts for Contract Agents can be renewed for a maximum of 6 years.

PLACE OF WORK:
Karlsruhe (DE)

ELIGIBILITY CRITERIA:
Candidates for this contract agent post shall:
– (i) have passed a valid EPSO CAST selection procedure;
or
– (ii) be registered in the EPSO Permanent CAST https://epso.europa.eu/documents/2240_en
or
- (iii) be registered in the specialised call for researchers https://ec.europa.eu/jrc/en/working-with-us/jobs/vacancies/function-group-iv-researchers (used mainly by the JRC).

With a valid application number to one of the above, you may then apply for this specific vacancy at JRC through: http://recruitment.jrc.ec.europa.eu/?type=AX.

RECRUITMENT POLICY:
The JRC

- Cultivates a workplace based on respect for other people and the environment.
- Embraces non-discriminatory practices and equality of opportunity. In case of equal merit, preference will be given to the gender in minority.