



2018-IPR-A5-FGIV-9889

**FG IV - Scientific/Technical Project Officer -
Exploratory Research: Novel Micromechanical
Testing Methods for the Characterization of
Nuclear Materials / μ Mech**

Position for:

**FG IV –
Scientific/Technical Project
Officer**

As the science and knowledge service of the Commission, the mission of DG Joint Research Centre 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 Exploratory Research Programme (ER) is a strategic initiative characterised by ideas that may lead to novel results, which are going to qualitatively enrich the current scientific work at the JRC.

The JRC is offering a position for a contract agent in the context of the μ Mech exploratory research project.

The main activity concerns the development of novel micromechanical tests based on the in-situ deformation of metallic membranes produced by microfabrication techniques. The aim of the whole project is to develop a new methodology, including sample preparation, measurement procedures and data treatment and analysis, for mechanical testing of structural materials for nuclear applications.

The candidate will be in charge of the development of the micro-fabrication process that will combine optical lithography and differential sputtering of sample surfaces to create micro-structured metallic membrane for further performing mechanical testing. The work includes the preparation of optical masks for the mask aligner and the optimization of the differential sputtering of the samples. The final finishing of the structures will be performed by Focused Ion beam.

Qualifications:

- Doctoral degree (or equivalent) in Physics or Materials Science or related field. As equivalent is considered a University degree giving access to doctoral studies and 5 years of research experience in a field relevant to the position.
- Good oral and written communication skills in English (level B2), knowledge of other languages an asset.
- Excellent record of research activities including publications in international peer-reviewed journals.

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

- Knowledge in micro-nanotechnology, microfabrication, plasma processing and electron microscopy (SEM/TEM) Experience in focus Ion beam operation is appreciated.
- Ability to work in a team and multi-cultural environment.

	<p>The candidate is expected to be creative and work independently.</p>
<p>Directorate Unit</p>	<p>Consumers Health and References Materials Consumer Products Safety (Operational)</p> <p>The Scientific Development Unit of the Strategy and Work Programme Coordination Directorate is in charge of the overall JRC Exploratory Research Programme. The operational scientific research will take place in the Consumer Products Safety Unit.</p> <p>Exploratory Research Project μMech (Novel Micromechanical Testing Methods for the Characterization of Nuclear Materials)</p> <p>Further information: https://ec.europa.eu/jrc/en/science-area/nuclear-safety-and-security https://ec.europa.eu/jrc/en/research-topic/nuclear-safety </p>
<p>Indicative duration</p>	<p>24 months</p>
<p>JRC Site Country</p>	<p>Ispra Italy</p>
<p>Rules and eligibility</p>	<p>The candidate must be on a valid EPSO reserve list for Function Group IV contract staff.</p> <p>Applicants to the following Calls for expression of interest can also be considered:</p> <ol style="list-style-type: none"> 1. CAST Permanent - EPSO has launched in January 2017 an open-ended selection procedure to create a pool of candidates from which the institutions, bodies, offices and agencies of the European Union (EU) can recruit contract agents. Details available at the link below: https://epso.europa.eu/documents/2240_en 2. Call COM/1/2015/GFIV – Research - The JRC has launched in January 2015 a permanent call for researchers FG IV. Details available at the link below: https://ec.europa.eu/jrc/en/working-with-us/jobs/vacancies/function-group-IV-researchers <p>Auxiliary contract staff: https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/contract-staff-members </p> <p><i>Please note that due to the high number of applications received only shortlisted candidates will be contacted.</i></p>