



2018-PTT-A5-FGIV-9904

**Exploratory Research Project  
Novel Micromechanical Testing Methods for  
the Characterization of Nuclear Materials  
/μMech**

**Position for:**

**FG IV Scientific 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: <http://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 μMech exploratory research project.

**Short description of activity:**

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 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 performing micromechanical testing ex-situ (using a nanoindentation set-up) and in-situ (inside a SEM). As well, he/she will be responsible for post-test examinations by electron microscopy, analysing the data and reporting.

**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.
- Knowledge in nanoindentation, micromechanical testing and electron microscopy (SEM/TEM) is essential.
- Knowledge of metallographic preparation, microfabrication techniques, and mechanical performance of materials and modelling of physical properties will be an advantage.
- Good oral and written communication skills in English (B2) are essential, knowledge of other languages an asset.
- Excellent record of research activities including publications in international peer-reviewed journals.

