



2018-KRU-G-000-010686

**Laboratory characterisation nuclear fuels
thermophysical properties**

<p>Position for:</p> <p>Trainee</p>	<p><u>Short description of activity:</u></p> <p>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.</p> <p>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/en</p> <p>A traineeship is proposed to contribute to the measurement and analysis of nuclear fuel thermophysical properties (thermal diffusivity, specific heat, thermal conductivity, density). The experimental techniques mainly used will be the laser-flash for the determination of the thermal diffusivity and the differential scanning calorimetry for the determination of the specific heat. The work includes the interpretation with the help of additional material characterisation techniques, such as X-ray diffraction and electron microscopy. The samples will be provided by the on-going European research projects focused on nuclear fuel safety for current and future reactor types and the results will be reported as a contribution to these projects.</p> <p><u>Qualifications:</u></p> <ul style="list-style-type: none">-The ideal candidate will be an undergraduate or graduate (B.Sc. or M.Sc.) student in Nuclear Engineering, Materials Engineering, Materials Science, Physics, Chemistry or similar disciplines.- She or he will be ready to perform experimental work in a radioactive controlled laboratory.- She or he will be willing to work in an international environment (main language/ English).- The candidate will summarise the results of the traineeship in a report. <p><u>For general eligibility requirements, please read the rules governing the traineeship scheme of the JRC:</u></p> <p>https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/jrc-trainees</p>
--	--

Institute Unit	Directorate for Nuclear Safety and Security (Karlsruhe) JRC.G.I.3 Nuclear Fuel Safety Unit Further information: https://ec.europa.eu/jrc/en/about/organisation https://ec.europa.eu/jrc/en/science-area/nuclear-safety-and-security
Indicative duration	5 months
Preferred starting date	December 2018/January 2019
JRC Site	Karlsruhe
Country	Germany
<u>JRC contact details</u>	For any technical problems with your application, please contact: HR-AMC8-RECRUITMENT-TOOLS-SUPPORT@ec.europa.eu