



2019-GEE-A5-FGIV-011511

**FGIV – Scientist - Exploratory Research Project  
Alpha spectrometry through time of flight  
(A-TOF)**

<p><b>Position for:</b> <b>FG IV Scientist</b></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 <a href="http://ec.europa.eu/jrc/">http://ec.europa.eu/jrc/</a></p> <p>The JRC offers a vacancy for a Contract Agent within the Exploratory Research Project A-TOF (Alpha spectrometry through time of flight).</p> <p>The JRC Exploratory Research Programme (ER) is a strategic initiative characterised by ideas that might lead to novel results to qualitatively enrich current JRC scientific work.</p> <p>The ER Project A-TOF will design and construct an experimental set-up to measure the energy of alpha particles by time-of-flight. The set-up will include a source chamber and long flight tube under vacuum, a focussing magnet system, a start and stop detector and electronics to record time differences. The stop detector will be moveable over an SI-traceable distance for calibration purposes. The project aims at obtaining an energy resolution of a few keV, thus providing reference data sets on alpha emission energies and probabilities in nuclear decay, which can be used by other organisations.</p> <p>The successful candidate will be in charge of:</p> <ul style="list-style-type: none"><li>• Carrying out all aspects of the A-TOF project, in collaboration with internal and external experts;</li><li>• Design the set-up, perform model calculations;</li><li>• Acquire the necessary components and construct the device;</li><li>• Implement/test/optimize the method;</li><li>• Dissemination/publication of results.</li></ul> <p>Qualifications:</p> <ul style="list-style-type: none"><li>• Completed university studies of at least three years attested by a diploma and at least five years professional experience in a field relevant to the position, alternatively a doctoral diploma in physics or engineering or related field;</li><li>• Extensive knowledge/experience in nuclear physics is essential;</li><li>• Broad knowledge in the area of experimental techniques is essential;</li><li>• Knowledge of time-of-flight measurements, beam optics, magnetic fields, nuclear detectors, electronics, digital data acquisition is an advantage;</li><li>• Solid record of research activities relevant for the post including publications in international peer-reviewed journals is an advantage;</li><li>• Good oral and written communication skills in English (B2) are essential, knowledge of other languages is an</li></ul>
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	<p>advantage.</p> <p>In addition, the following competences will be considered as an advantage:</p> <ul style="list-style-type: none"> <li>• Ability to work in a team and in a multi-cultural environment;</li> <li>• The candidate is expected to be creative and work independently.</li> </ul>
<p><b>Directorate Unit</b></p> <p><b>Project</b></p>	<p>Nuclear Safety and Security Standards for Nuclear Safety, Security and Safeguards</p> <p>The Scientific Development Unit of the Directorate for Strategy and Work Programme Coordination is in charge of the overall JRC Exploratory Research Programme.</p> <p>The operational scientific research will take place in the Standards for Nuclear Safety, Security and Safeguards Unit in Geel (Belgium).</p> <p>Exploratory Research Project: Alpha spectrometry through time of flight (A-TOF)</p> <p>Further information is available at: <a href="https://ec.europa.eu/jrc/en/research-topic/nuclear-safeguards">https://ec.europa.eu/jrc/en/research-topic/nuclear-safeguards</a></p>
<b>Indicative Duration</b>	24 months
<p><b>JRC Site</b></p> <p><b>Country</b></p>	<p>Geel</p> <p>Belgium</p>
<b>Rules and eligibility</b>	<p>The candidate must be on a valid EPSO reserve list for Function Group IV contract staff.</p> <p>If you are not in any valid EPSO reserve list for Function Group IV contract staff, you can still apply by following these steps.</p> <p>You express your interest by applying to the CAST Permanent or to the permanent JRC Call for researchers.</p> <p>1. CAST Permanent: 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. <a href="https://epso.europa.eu/documents/2240_en">https://epso.europa.eu/documents/2240_en</a></p> <p>2. JRC Call COM/1/2015/GFIV – Research: open-ended selection procedure to create a pool of candidates from which mainly the JRC can recruit contract agents FGIV as researchers. Details available at the link below: <a href="https://ec.europa.eu/jrc/en/working-with-us/jobs/vacancies/function-group-IV-researchers">https://ec.europa.eu/jrc/en/working-with-us/jobs/vacancies/function-group-IV-researchers</a></p> <p>Only then you can apply for this specific position, through <a href="http://recruitment.jrc.ec.europa.eu/?type=AX">http://recruitment.jrc.ec.europa.eu/?type=AX</a></p> <p><b>Auxiliary contract staff:</b> <a href="https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/contract-staff-members">https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/contract-staff-members</a></p> <p>Article 3b of the Conditions of Employment of Other Servants of the European Union applies: the actual period</p>

	<p>of employment within the Commission under this type of contract, including any period under renewal, shall not exceed 6 years.</p>
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*Please note that in case a high number of applications is received only shortlisted candidates will be contacted.*