

Job Description for Professional Posts

Reference: NA2024/08

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| Position and Grade: | Associate Research Scientist (Radiochemistry R&D) , P2 |
| Organizational Unit: | Radiometrics Laboratory Division of IAEA Marine Environment Laboratories |
| Duty Station: | Monaco |
| Type/Duration of Appointment: | FT – JPO, 1 year |

Organizational Setting

The Department of Nuclear Sciences and Applications implements the IAEA's Major Programme 2, "Nuclear Techniques for Development and Environmental Protection". This Major Programme comprises individual programmes on food and agriculture, human health, water resources, environment and radiation technologies. These programmes are supported by laboratories in Seibersdorf, Monaco and Vienna. The Major Programme's objective is to enhance the capacity of Member States to meet basic human needs and to assess and manage the marine and terrestrial environments through the use of nuclear and isotopic techniques in sustainable development programmes.

The IAEA Marine Environment Laboratories consists of three laboratories, which are located in Monaco. The Division supports Member States in enhancing their capacity to use nuclear and isotopic techniques to understand marine and atmospheric environmental processes and dynamics, and to identify and address environmental problems caused by radioactive and non-radioactive pollutants and climate change.

The Radiometrics Laboratory has expertise in the fields of marine radioactivity measurements, development of radioanalytical methods, low-level counting, modelling of dispersion, environmental and radiological assessments, marine database management, and radiotracer applications in oceanographic, pollution and climate studies. It collaborates with Member States to assist them in their development and to implement capacity building technical cooperation projects. It also helps them to prepare for emergency situations, carries out missions at sea, supports analytical quality in Member States laboratories and provides training.

Main Purpose

To undertake research and development into the analysis of fission and activation products of specific interest in the marine environment using radiochemical techniques.

Role

Under supervision of the Head of the Radiometrics Laboratory, the Associate Research Scientist (Radiochemistry R&D) is: (1) a technical specialist assisting in the development and implementation of radioanalytical separation and measurement techniques, (2) an analyst undertaking measurements and analysing the results, and (3) a communicator preparing and presenting results through technical reports and scientific publications. The incumbent will conduct experimental work to contribute to the development and improvement of radioanalytical methods and will participate in characterisation and

complete validation of methods for the analysis of fission and activation products in the marine environment.

Partnerships

The Associate Research Scientist (Radiochemistry R&D) builds and maintains working relationships with staff of RML engaged in radionuclide analyses and with similar relevant staff of other laboratories of the IAEA Marine Environment Laboratories and of other IAEA Divisions. He/she also develops and builds networks with scientists and technical staff from Member State laboratories to exchange information on the development and the applications of radioanalytical methods for the analysis of fission and activation products in the marine environment. The incumbent will collaborate with the other specialists in nuclear analytical techniques in NAML and will work closely with the Laboratory Head, Research Scientists and Research Assistants in RML.

Functions / Key Results Expected

- Contribute to the development of radiochemical techniques for the analysis of fission and activation products in marine matrices.
- Implement validation and quality control procedures for newly developed techniques in line with the requirements of international standards.
- Research alternative and/or complementary methods for the analysis of fission and activation products of interest in the marine environment.
- Communicate the results of research in technical reports, peer-reviewed scientific publications and relevant meetings.

Competencies and Expertise (do not revise or edit)

| Core Competencies | | |
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| Competence | Occupational Role | Behavioural Indicator |
| Communication | Individual Contributor | Communicates orally and in writing in a clear, concise and impartial manner. Takes time to listen and understand the perspective of others and proposes solutions. |
| Achieving Results | Individual Contributor | Takes initiative in defining realistic outputs and clarifying roles, responsibilities and expected results in the context of the Department/Division's programme. Evaluates his/her results realistically, drawing conclusions from lessons learned. |
| Teamwork | Individual Contributor | Actively contributes to achieving team results. Supports team decisions. |
| Planning and Organizing | Individual Contributor | Plans and organizes his/her own work in support of achieving the team or Section's |

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| | | priorities. Takes into account potential changes and proposes contingency plans. |
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| Functional Competencies | | |
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| Competence | Occupational Role | Behavioural Indicator |
| Knowledge sharing and learning | Associate | Actively seeks opportunities to learn by formal and informal means; learns from others, adopting and sharing best practice. |
| Judgement / decision making | Associate | Consults with supervisor/manager and makes decisions in full compliance with the Agency's regulations and rules. |

| Expertise | |
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| Expertise | Description |
| Physical Science / Physics / Low Level Radiometrics Techniques | Knowledge in radionuclide measurements at environmental levels |
| Physical Science / Environment / Environmental Radiochemistry | Fundamental knowledge in radiochemistry techniques |

Education, Experience and Language Skills

- University degree in Chemistry, Physics or other related field.
- Minimum of two-years of experience in environmental radioactivity, radiochemistry.
- Excellent oral and written command of English. Knowledge of other official IAEA languages (Arabic, Chinese, French, Russian and Spanish) is an asset.

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