

Senior Analytical Chemist (P-4) (Synthetic)

Principal Functions

Reporting to the Head, Laboratory and in accordance with the OPCW Core Values of Integrity, Professionalism and Respect for Diversity/Gender Equality, the Senior Analytical Chemist performs the following duties:

Senior Analytical Chemist:

1. Synthetic organic chemist.
2. Guarantee the daily operational readiness of the microsynthesis facility (MSF) at OPCW's Centre for Chemistry and Technology.
3. Perform synthesis and purification of small amounts of toxic chemicals within the MSF.
4. Perform chemical analysis of synthesized materials by means of NMR and mass spectrometry-based techniques
5. Translate knowledge on synthetic chemistry into knowledge relevant for the CWC, in terms of impurity profiling and provenance (chemical forensics).
6. Translate knowledge on environmental chemistry into knowledge relevant for the CWC, in terms of agent fate, sampling and analysis.
7. Provide technical advice, training and support on inspection and verification related issues including.
8. Coordinate research projects at the Centre for Chemistry and Technology.
9. Collaborate with other divisions within OPCW, in particular the Inspectorate division.

All posts share the following responsibilities:

Provide training and certification exercises for AC inspectors or other trainees on performing analyses using GC/MS systems and sample collection and preparation kits:

1. Assist with the planning of the scope, technical and organisational aspects of the training;
2. Develop training materials;
3. Prepare and validate instruments for the training;
4. Prepare the samples for the training and certification exercises;
5. Act as key lecturer and instructor during training and exercises;
6. Supervise the work of trainees in the laboratory;
7. Evaluate and report the performance of the trainees.

Develop and provide training for both internal and external participants on 1) performing analyses using analytical equipment such as GC/MS, LC/MS and NMR, 2) methods/techniques supporting the proficiency testing programme, 3) safe handling of chemical agents, 4) synthesis of chemical agents, 5) other training courses as determined by the Head of the Laboratory:

1. Assist with the planning of the scope, technical and organisational aspects of the training;
2. Develop training materials;
3. Prepare and validate instruments for the training;
4. Prepare the samples for the training;
5. Act as key lecturer and instructor during training and exercises;
6. Supervise the work of trainees in the laboratory;

7. Evaluate and report the performance of the trainees.

Maintain OPCW Laboratory accreditation and support QMS:

1. Actively contribute to the maintenance and development of the QMS in the relevant areas;
2. Maintain and develop QMS documentation, including SOPs and WIs;
3. Support internal audit activities, receive audit reports and ensure corrective action where necessary;
4. Assist with the preparation of the quality manuals, the document control mechanism and the recording reporting methods;
5. Actively participate in cross training activities to support continuity of expertise in all laboratory processes in case of staff replacement;
6. Assist with performing QA audits.

Ensure safe and efficient operation of the OPCW Laboratory, including procurement and maintenance of laboratory equipment in a timely and efficient manner:

1. Assist with planning and drafting the annual OPCW Laboratory budget;
2. Assist with evaluating, selecting and delegating staff for relevant laboratory tasks;
3. Act as senior analytical and CW expert by advising, undertaking and supervising experimental work in the Laboratory;
4. Assist with activities necessary to ensure a safe working environment;
5. Participate in internal Health and Safety audits;
6. Report to the Head of OPCW Laboratory on the operational situation, progress and results;
7. Provide an information and place orders to ensure that there is enough equipment and chemicals to support efficient work of the OPCW Laboratory;
8. Supervise and undertake procedures for the use, maintenance, calibration and quality assurance of analytical equipment are in place;
9. Support procurement of equipment in technical aspects and advise the Committee on Contracts as needed.

Provide technical advice, training and support on inspection analytical equipment-related issues and verification-related analytical issues:

1. Develop, test and validate analytical methods;
2. Receive and evaluate information and documents related to inspection equipment and sample analysis;
3. Provide technical advice and support to the Head of the Laboratory when required;
4. Ensure that different divisions and branches of OPCW are provided with technical advice and information relating to inspection analytical equipment and verification-related analytical issues when requested.

Assist the Inspectorate by acting as an Analytical Chemist Inspector:

1. Perform research on industrial chemicals and their analysis prior to an inspection;
2. Prepare for mission by taking part in pre-mission briefings, get medical clearance, fit personal protective equipment;
3. Travel on inspections and function as an Analytical Chemist;
4. Report/brief post inspection.

Assist in the Preparation of Authentic Samples:

1. Handle, process and split samples gathered by inspectors and sent for offsite analysis;
2. Evaluate reports prepared by designated laboratories.

Perform other duties as required.

Educational qualifications required for this post:

Education

Essential

An advanced degree in Chemistry or equivalent from a recognized institution. A first-level university degree in combination with extensive relevant laboratory experience (=> 9 years) may be accepted in lieu of the advanced university degree.

Desirable

Ph.D. in Chemistry, Biochemistry or Toxicology preferably with a focus on Analytical or Bioanalytical Chemistry.

Experience

Essential

1. At least 7 years experience in the field of analytical chemistry and instrumental analysis with advanced degree or 9 years with first level degree;
2. A minimum of 6 years recent and practical experience as operator of GC/MS and/or LC/MS and/or NMR instrumentation;

Desirable

In addition, for the Deputy Head/Laboratory and Research Programme Manager: Desirable: prior experience in project management, including training such as PRINCE2 project management, will be an asset.

Skills and Abilities (key competencies)

1. Knowledge of the chemistry of Scheduled chemicals, their precursors and degradation products that are listed in the 'Annex on Chemicals' in the CWC;
2. Knowledge of sampling and analysis procedures for the analysis of chemical weapons related chemicals and of related instrumental analytical methods and techniques (GC/MS, LC/MS, FTIR, NMR);
3. Knowledge of quality assurance and quality control procedures and international standards;
4. Strong computer software and electronic data management skills;
5. Basic understanding of general analytical methods including their limitations and of modern instrumentation needed to apply these methods in field as well as laboratory situations;
6. A broad understanding of the various analytical techniques (and their limitations) used by laboratories in the analysis of Convention related chemicals;
7. Ability to manage teams in working on technical projects, background in quality management systems;
8. Tact, discretion, and the ability to work harmoniously in a multi-cultural environment.

Language Requirements

Fluency in English is essential and a good working knowledge of one of the other official languages (Arabic, Chinese, French, Russian, and Spanish) is desirable.