



## RECRUITMENT ONLY

**Position:** Principal Chemist – Radiological/Nuclear  
**Reference #:** 01597  
**Organizational Unit:** NS- FS/OS  
**Appointment Type:** Full-Time  
**Location:** Charlottesville, VA and OCONUS  
**Date Posted:**

**PURPOSE:** To provide Chemists to operate, maintain and perform technical nuclear forensics analysis using applicable laboratory instrumentation, tools, and techniques on radiological and/or nuclear materials of interest in CONUS and/or OCONUS locations.

### ESSENTIAL JOB FUNCTIONS:

- Define new methods to support expansion of laboratory capabilities and improve/solve existing method deficiencies.
- Assist in developing Standard Operating Procedures (SOPs)
- Review, evaluate, and analyze data from samples and provide database entry support
- Perform equipment/instrument maintenance
- Operate, maintain and perform radiochemical sample analysis using applicable laboratory instrumentation and techniques required to identify attribution signatures (i.e., indicating country of origin such as geological/industrial, isotopic composition/ratios); characterization signatures (i.e., those indicating process such as chemical form, physical form); and indicative signatures (i.e., those that by themselves do not indicate origin, process, or use such as elemental composition, trace constituents)
- Extensive experience and use of techniques for radiation detection, counting and spectroscopy, imaging and microscopy, mass spectroscopy and gas chromatography, and data analysis
- Utilize, maintain, and troubleshoot instrumentation such as the following:
  - Gas Chromatography Mass Spectrometry (GC/MS)
  - Fourier Transform Infrared (FTIR) Spectroscopy
  - Liquid Chromatography/ Mass Spectrometry / Mass Spectrometry (LC/MS/MS)
  - X-Ray Fluorescence (XRF)
  - X-Ray Diffraction (XRD)
  - Scanning Electron Microscope (SEM)
  - Inductively Coupled Plasma Mass Spectrometry (ICPMS)
  - Polarized Light Microscope (PLM)
  - Ion Chromatography (IC)

Visit [www.ora.gov/careers](http://www.ora.gov/careers) to apply through the preferred process. If you have any questions please email [work@ora.gov](mailto:work@ora.gov)

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Applicants that apply for a position that requires access authorization then ORAU will test for the absence of any illegal drugs as defined in 10 CFR 707.4. ORAU will also conduct a background investigation by the Federal government as required to obtain an access authorization prior to employment, and reinvestigations will be conducted as required.

Applicants that apply for a position that are covered by the Counterintelligence Evaluation Program regulations as defined in 10 CFR 709 may be required to have a counterintelligence-scope polygraph examination.



- Compare sample results to a library of known results for the specific instrumentation and chemical being tested
- Use photographic equipment to capture still images of each evidence item and relevant key portions of the evidence item, or other exhibits, to support further analysis, conclusions, and documentation
- Document examination results/findings in the required Laboratory Information System(s) and databases
- Annotate the file documentation, detailing the processing techniques and the examination results
- Perform administrative and/or technical reviews of files, reports, data, etc.
- Ensure a proper chain of custody for all evidence and samples is maintained
- Maintain a clean laboratory and personal workspace environment, in accordance with laboratory procedures
- Train junior personnel on equipment, instruments, methods, and procedures
- Supervise junior staff and assign daily tasks and responsibilities
- Lead development and execution of test plans, validations, and method development

#### **JOB REQUIREMENTS:**

- A Ph.D. in science (e.g., radiochemistry, physics, nuclear engineering or related field) coupled with 5 years directly relatable experience
- 10 years of experience working in the Intelligence Community (IC) environment
- Proficiency working with chemistry analytical methodologies such as Gas Chromatography (GC) and/or Fourier Transform Infrared (FTIR) Spectroscopy
- Must possess, at a minimum, intermediate computer skills and experience with Microsoft Office applications including Word, Excel, PowerPoint, Access, Project and Outlook
- Must be able to successfully pass all medical requirements for deployment, as needed
- Must be able to successfully pass a skills assessment
- Experience working in a forensic laboratory
- Must be able to successfully pass a skills assessment.
- Currently have an active DoD Secret security clearance
- U.S. citizenship
- Eligible for both US Tourist Passport and US Official Passport

#### **DESIRED QUALIFICATIONS:**

- An active DoD security clearance – Top Secret w/ SCI eligibility or TS/SCI
- Deployed experience in an Analytical/Operational environment

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