

Opportunity Title: Post Doctoral Research Associate position in Mass Spectrometry

Opportunity Reference Code: SRNL15-05-NTS

Organization Savannah River National Laboratory (SRNL)

Reference Code SRNL15-05-NTS

Description • Ph.D. in Chemistry, Physics, Geochemistry, or related field (degree completed by July 31, 2015)

The successful applicant will initially support R & D programs in the Savannah River National Laboratory Nonproliferation Technology Section as a member of a four-person team working in the Trace Nuclear Measurement Technology Group (TNMT) Mass Spectrometry Laboratory. While the analytes of interest are usually Pu and/or U (present at trace levels in environmental samples), measurements are not limited to actinides and/or radioactive species. Experimental studies will exclusively involve analysis of environmental samples from on-going programs at first; however, opportunities exist for the developing new programs from both internal and external funding sources.

Experimental work associated with this position will generally be executed in the TNMT Mass Spectrometry Lab. The mass spectrometry laboratories occupy three large laboratory modules, with adjoining wet-chemistry labs for sample preparation. Instruments in use to support of on-going science and engineering programs include:

- KAPL Three-stage Thermal Ionization Mass Spectrometer (built in-house utilizing KAPL design)
- Nu Plasma HR Two-stage Multi-Collector ICP-MS
- IsotopeX IsoProbe-T Single Stage Thermal Ionization Mass Spectrometer
- Agilent Model 7500 ICP-MS (in the process of upgrading to a newer instrument)
- Charles Evans Associates TRIFT II Time of Flight - Secondary Ion Mass Spectrometer

In addition to these instruments, the mass spectrometry laboratory houses other instruments that can be used to support experimental programs:

- Mattauch-Herzog Mass Spectrometer
- NBS Single-stage Thermal Ionization Mass Spectrometer
- $3\text{He}/4\text{He}$ Gas Mass Spectrometer (for measuring trace 3H in environmental samples)


- Qualifications**
- Experience in mass spectrometry
 - Programming experience (Labview experience a plus)
 - Experience or interest in developing or improving analytical methods
 - Experience or interest in instrument design
 - Experience or interest in thermal ionization mass spectrometry
 - Ability to work productively with collaborators
 - Ability to adhere to operational protocols that include working in an experimental facility that is maintained at Class 1000 (ISO 6)


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Spectrometry

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- Eligibility**
- **Citizenship:** U.S. Citizen Only
- Requirements**
- **Degree:** Doctoral Degree received within the last 60 month(s).
 - **Discipline(s):**
 - **Chemistry and Materials Sciences** ([7](#) 👁)
 - **Earth and Geosciences** ([21](#) 👁)
 - **Engineering** ([12](#) 👁)
 - **Environmental and Marine Sciences** ([2](#) 👁)
 - **Physics** ([16](#) 👁)

Affirmation I certify that I have completed coursework towards a degree in science, technology, engineering, mathematics, or a related field.

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