GeoBulletin is distributed weekly, by E-mail. Contributions are requested! If you have a news item, a request, an announcement etc. email it to geodept@geology.wisc.edu or leave it at the office, Room 225 by Noon on Monday.

**Weeks Lecture**

*Speaker list – Spring 2012*

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Faculty Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday, Mar 9, 2012:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aradhna Tripati, UCLA (Host: Carlson)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Dr. Aradhna Tripati**

University of California, Los Angeles

Departments of Earth and Space Sciences & Atmospheric and Oceanic Sciences, Institute of Geophysics and Planetary Physics

**Friday, March 9th, 2012, 3:30 PM, Weeks Hall – Room AB20**

**Recent developments in clumped isotope geochemistry and glacial climate**
Friday, Mar 16, 2012:
Steve Holbrook, Univ of Wyoming (Host: Tobin)

Friday, Mar 23, 2012:
Marin Clark, Univ of Michigan (Host: Goodwin)

Friday, Apr 13, 2012:
BOV

Friday, Apr 27, 2012:
Tim Masterlark, U. Alabama (Host: Feigl)

Friday, May 4, 2012:
Carl Jacobson, IOWA State (Host: Goodwin)

Friday, May 11, 2012:
Margaret Fraiser, UW-Milwaukee (Host: Peters)

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**AEG (Association of Engineering Geologists) Club Meeting**

**Upcoming Events:**
- March 20, 2012 at 6pm in 2239 Engineering Hall
  - Dave Taylor, P.E. from Madison Metropolitan Sewerage District
- SES Blasting Field Trip- March 16
  - Visit a local Madison project with the geotechnical firm SES, Inc. We may be able to witness a blasting event! We will be leaving around 11:15a from Engineering Hall. If interested, email missysetz@gmail.com by Monday, March 5.

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**Looking for a fun and different MS degree in Petrology/Mineralogy/Geochemistry/Planetary Science?**

I've got projects for two students who would like to earn a Master's Degree in Geology from the Univ. of Puerto Rico, located in Mayaguez Puerto Rico. The projects are fully supported (tuition paid + salary) by a research
grant from NSF and departmental support.

Project Description:

Both projects are highly multi-disciplinary, and combine petrology, mineralogy, meteorite impact studies, sedimentology, geomorphology, geochemistry, and electron microscopy in new ways to identify evidence of eroded impact structures in the geologic record. Specifically, the project goals are to search for detrital shocked minerals in unusual sedimentary environments in southern Africa.

Students should have a interest in one or more of the above areas. Basic undergraduate coursework in mineralogy, petrology, and sedimentology is required. Additional undergraduate research experience in any of the above areas would be helpful. Previous knowledge of or experience working with accessory minerals (zircon and others) is also helpful but not necessary. The projects require a few weeks of summer field work in South Africa that will be conducted in the summer of 2012 (probably July).

I encourage interested students to contact my current MS graduate students Timmons Erickson (timmons.erickson@gmail.com) and Olivia Thomson (olivia.thomson@upr.edu) who are working on related detrital shocked mineral graduate projects to ask them about their experiences. Additional information is available here: http://blogs.uprm.edu/aaroncavosie/.

About the Dept. of Geology at UPRM: http://geology.uprm.edu/
The Dept. of Geology has 12 faculty members with diverse research interests. Our MS program has about 20 students from several countries. A MS degree at UPRM generally takes 2-3 years. All full-time graduate students are supported. Many of our MS students continue on to PhD programs in North America, or gain employment in the geoscience sector. We are the only geology department in Puerto Rico, and one of the few in the Caribbean.

More information about our graduate program can be found here: http://geology.uprm.edu/gradstudies/gradmain.html

About the Univ. of Puerto Rico Mayaguez (UPRM): http://www.uprm.edu/
Mayaguez is located in a bay on the west side of Puerto Rico. UPRM is one of 11 UPR campuses, and is the center of Science, Technology, Engineering, Math (STEM) disciplines in the UPR system. There are approximately 13,000 students at UPRM, and 1,000 graduate students.

About Puerto Rico:
Puerto Rico is a U.S. territory. U.S. citizens need no special paperwork to visit/study in Puerto Rico. Non-U.S. students will need to have a valid visa to study at UPRM. We have a history of having students from Central and South America attend UPRM for graduate school.

Language:
UPRM is a bilingual school. Courses are taught in both English and Spanish. Full fluency in at least one of these languages is required, and some knowledge of the other is helpful. Official student documents (proposals, reports, theses, etc.) are in English.

Additional student Info:
Interested minority students are encouraged to apply (Hispanic, African American, Native American, others). Given that Puerto Rico has a deep history in Spanish language and culture, U.S. students from Hispanic backgrounds, and non-US citizens from Central and South America are encouraged to apply. The Univ. of Puerto
Rico is an excellent location to earn a Master's degree, and offers a bridge to PhD and other employment opportunities in North America and elsewhere.

Timing:
For these projects you must be able to participate in field work in July of 2012 and be able to start normal semester coursework in August 2012. There is some flexibility. Contact me for more details.

Application Information:
I encourage any interested students to contact me at: aaron.cavosie@upr.edu. I can answer questions, and provide additional information that will help you decide if this is a project you would like to work on. Graduate applications can be submitted to UPRM until late in the spring, but it would be best to apply as soon as possible if you think you are interested.

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JOB OPENINGS:

• UNIVERSITY OF CAMBRIDGE DEPARTMENT OF EARTH SCIENCES -Two University Lectureships in Tectonics/Geophysics
• Postdoctoral fellowship in Seismology
• The Bird terrestrial biogeochemistry lab is seeking a postdoctoral researcher to work on a NSF-funded project in terrestrial biogeochemistry and microbial ecology.
• The University of KwaZulu-Natal, Durban (South Africa), offers Postdoctoral Research Fellowships to start in 2012.
• Professional Scientist or Assistant Research Hydrogeologist/Geologist - Montana Bureau of Mines & Geology
• The Department of Earth Sciences at IUPUI is hiring an Instrumentation and Academic Specialist
• Isotope Laboratory Specialist, School of Ocean & Earth Science & Technology, University of Hawai'i at Manoa
• The National Park Service, Natural Resources Stewardship and Science, Geologic Resources Division is now recruiting for a Geologist/Geomorphologist
• Postdoctoral Research Associate - University of Utah
• ARCADIS is seeking a detail oriented, well organized, graduate geologist with less than 2 years of related experience to join our Midland, Texas office.
• Postdoctoral position: Studying diffuse uranium release from mine waste rocks

JOB OPENINGS:

UNIVERSITY OF CAMBRIDGE DEPARTMENT OF EARTH SCIENCES -Two University Lectureships in Tectonics/Geophysics

We invite applications from those whose research bears on any aspect of tectonics or geophysics, whether field-based, laboratory-based or computational. This may include marine geophysics, seismology, gravity, tectonics and geodynamics, and the application of physics to other fields of the Earth Sciences. The Department has a strong tradition of broad-based interactive teaching and research across these and other disciplines. Candidates
should have an outstanding record of research in a relevant subject area and will be expected to develop a vigorous research programme at an international level.

The persons appointed will be expected to contribute to the Department's undergraduate teaching at various levels, and to take part in field teaching. At elementary level they may be asked to help with teaching outside their field of specialisation. We welcome applications from persons with degrees in Earth Sciences, Geophysics, Physics, or Mathematics.

The successful applicants will be expected to contribute to the research activity of the Department leading to interaction with academic staff across several areas of the subject, to supervise research students and actively to seek external funds to support their research. The Department assists new academic staff as much as possible to establish their research in Cambridge.

We will also shortly be advertising a chair in quantitative Earth Sciences.

Please contact the Administrator (ab78@esc.cam.ac.uk) for further particulars and information about current research in the Department.

The appointments will be made at an appropriate point on the scale for University Lecturers (£36,862 to £46,696 a year) and will be for a probationary period of five years with appointment to the retiring age thereafter, subject to satisfactory performance.

To apply, please submit electronic files of (a) a full curriculum vitae, (b) list of publications, (c) 1000 word statement of research interests and intended research direction, and of teaching experience, (d) name, address, telephone number and email of three referees, to reach the Administrator (admin@esc.cam.ac.uk) no later than **Monday 2 April, 2012**.

Candidates are also requested to ask their referees to write direct to the Administrator (admin@esc.cam.ac.uk) by **Monday 2 April, 2012**.

**Interviews will be held in the period 1 May to 4 May 2012.**

See also our website [http://www.esc.cam.ac.uk](http://www.esc.cam.ac.uk)

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**Postdoctoral fellowship in Seismology**


Project WILAS is a R&D project funded by FCT, the Portuguese Science and Technology Foundation, which aims to contribute to image the 3D seismic structure beneath W Iberia from Crustal to Lithosphere-Astenospheric scale. Project WILAS has a strong cooperation with the Spanish project TOPO-IBERIA (Consolider-Ongenio CSD2006-00041), allowing the complete coverage of the Iberian Peninsula.

Candidates should have a PhD in seismology or a closely related area, excellent communication skills, ability to work as part of a team, and familiarity with techniques used in processing broad-band seismological data. Due to the aims of the project, expertise in the one or more of the following methods is required: receiver functions, ambient seismic noise tomography, teleseismic surface or body-waves tomography, local earthquake tomography.

The successful candidate will be expected to publish research papers and to present the research at national and international meetings.


The application will be open from March 1st to 20th 2012 and the contract is expected to start in April 2012.
The Bird terrestrial biogeochemistry lab is seeking a postdoctoral researcher to work on a NSF-funded project in terrestrial biogeochemistry and microbial ecology. The 5-yr project will investigate the fundamental biological, chemical and physical controls on black carbon (BC) degradation and transport processes in a northern forest soil. This research will link the charring temperature of BC materials to their chemical and physical structures and their resulting decay rates, the activity of the main degraders, enzyme activities, transport dynamics, and its stabilization mechanisms in soil. In addition, the postdoc would complete soil analysis for a second, recently completed field study funded by DOE, which is examining the fate of aboveground versus belowground plant C and N inputs to a temperate forest soil.

We seek a highly motivated PhD with demonstrated ability to carry out research in terrestrial biogeochemistry and microbial ecology. The successful candidate will be responsible for 1) quantifying soil microbial utilization of BC, 2) determining enzyme activities and dynamics of BC biomarkers, 3) tracking the movement of BC into soil organic matter fractions, and 4) assisting with field activities. The postdoc will also have the opportunity to develop new, complementary projects. Field work will take place at The University of Michigan Biological Station in Pellston, MI, and the postdoc will be expected to lead field sampling trips at the site along with a second postdoc working with co-PI Knute Nadelhoffer (University of Michigan) and graduate students. For more information about the Bird lab, Nadelhoffer lab, or UMBS please visit:

http://qcpages.qc.cuny.edu/~jbird/Index.html
http://www.lsa.umich.edu/umbs/
http://www.lsa.umich.edu/eeb/directory/faculty/knute/

Applicants should have a PhD in biogeochemistry, soil microbiology, chemistry, or a related field. Demonstrated experience in stable isotope biogeochemistry and undertaking field experiments will be preferred. The position requires an independent, organized, creative individual who is personable and enthusiastic about working in a collaborative group environment. The postdoc should be comfortable training and mentoring graduate and undergraduate students related to the projects. Interested candidates should send a single pdf file containing the following to Dr. Jeff Bird at jbird@qc.cuny.edu: (i) A cover letter indicating interest in the project, (ii) a curriculum vitae, (iii) a list of three references including names, email addresses, and telephone numbers, and (iv) two representative publications. Applications will be reviewed beginning March 15, 2012 and will be accepted until a suitable candidate is found. The position will be for one year, renewable up to two years based on performance. Start date for the position is June/early summer 2012.

The Research Foundation (RF) of The City University of New York is an Affirmative Action/Equal Opportunity/Americans with Disabilities Act employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability, age, citizenship status, Vietnam era or special disabled veteran's status, or sexual orientation. CUNY is an E-Verify employer.

Postdoctoral researcher position in soil ecology and biogeochemistry

University of Michigan Biological Station, University of Michigan

The University of KwaZulu-Natal, Durban (South Africa), offers Postdoctoral Research Fellowships to start in 2012. Successful applicants will be expected to engage in full-time postdoctoral studies on an approved research topic under the supervision of a member of the academic staff. Each fellowship consists of a tax-free stipend and extra funds to cover running costs of the project. The stipend is renewable for a second year subject to satisfactory progress.

This call specifically addresses researchers in the field of Metamorphic Geology in the broadest sense (petrology incorporating aspects of geochemistry, geochronology, structural geology, tectonics etc.). Candidates are expected to contribute to existing focus areas of research within the School.
The Geology Department has electron microprobe, XRF, ICP-MS, XRD facilities and cooperates closely with the Microscopy & Microanalysis Unit on the campus which offers excellent SEM (+ EBSD) and TEM facilities.

Eligibility criteria:
- A doctoral degree obtained in the last three years
- Age less than 45 years

Applicants are expected to have a publication record.

Anyone interested should contact her for further details:
Dr. Juergen Reinhardt
School of Agricultural, Earth & Environmental Sciences
Dept of Geology
University of KwaZulu-Natal
Durban, 4000
South Africa
reinhardtj@ukzn.ac.za

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Professional Scientist or Assistant Research Hydrogeologist/Geologist - Montana Bureau of Mines & Geology

Closing Date: March 16th, however position will remain open until filled
Employment Detail: Permanent, Full-Time
Salary Title and pay scale will be determined based on successful candidate’s education and experience.

Primary Duties
Successful candidate will be based in Butte, Montana. Depending on qualifications, individual will be hired as either a Professional Scientist, or Assistant Hydrogeologist/Geologist within the Ground Water Assessment Program (GWAP) at the Montana Bureau of Mines and Geology. Primary duties will be the analysis of hydrogeologic and geologic data to develop regional interpretations of hydrogeologic frameworks, groundwater flow systems, and groundwater quality. These interpretations will be compiled into maps and reports. Successful candidate should have knowledge of the geology and hydrogeology of Montana, and familiarity with the Montana Ground Water Information Center (GWIC) online database. Other tasks include planning and assisting with field activities such as: measuring groundwater levels; collecting water quality samples; design and supervision of monitor well installation; planning and execution of aquifer tests; geologic mapping; and stream gauging. Successful candidate will be expected to work individually and as part of a team to write reports and develop map products; make presentations at public and scientific meetings; routinely work on more than one project; and answer public inquiries. Successful candidate will be required to travel including some overnight stays. Duties will require candidate to work safely alone in isolated areas, be able to lift 50 lbs., and may require walking up to 2 miles.

Knowledge, Skills & Education Required
- A Bachelors degree in hydrogeology, geology, or related field and a minimum of 3 years experience (or a Masters degree in hydrogeology, geology, or related field) for the Professional Scientist level;
- a Masters degree in hydrogeology, geology, or related field and a minimum of 3 years groundwater project experience (or a Ph.D. in hydrogeology, geology, or related field) for the Assistant level.
- Good verbal and written communication skills.
- Proficiency with common word-processing and spreadsheet software (e.g. Microsoft Office).

Preferred Education & Experience
- Hydrogeologic and/or geologic field experience.
- Experience with GIS analysis and hydrogeologic/geologic map compilation using GIS (ARCMap preferred).
Experience in synthesizing, interpreting, and managing hydrogeologic data.
Experience in interpreting well-log data and characteristics of stratigraphic units to develop aquifer relationships.
Ability to produce high-quality written reports.
Familiarity with water-level and field water-quality instruments, data loggers, stream gauging equipment, and GPS receivers.
Familiarity with water-quality and groundwater flow modeling software.

To apply, please submit the following items:
- Cover letter which specifically addresses the above-mentioned qualifications
- Detailed resume
- Name and contact information for 3 professional references
- Authorization for Criminal Background Investigation

The items listed above should be sent to:
Montana Tech Personnel Office
1300 West Park Street
Butte, MT 59701
Phone: 406-496-4380
Fax: 406-496-4387
e-mail: cisakson@mtech.edu

The Department of Earth Sciences at IUPUI is hiring an Instrumentation and Academic Specialist to manage research instrumentation, provide departmental laboratory safety compliance, and support teaching. The primary purpose of this position is to provide assistance to the Department and faculty through oversight of the Earth Science research infrastructure, with particular focus on managing and maintaining the efficient operation of the Department’s instruments (e.g. GCs, HR-ICP-MS, GS-MS, gas-source irMS, ICP-ES, XRD, CHN analyzer and computer interfaces). The Academic Specialist will provide general laboratory research support, such as user training, overseeing sample preparation and analyses, instrument troubleshooting, and instrument maintenance. Laboratory support also includes ensuring departmental and building safety by serving as laboratory safety coordinator. In addition, this position will provide teaching support including maintaining the rock and mineral collections for course instruction as well as helping students to coordinate laboratory and field activities. Depending on the person’s qualifications, duties may include occasional course instruction in the Department of Earth Sciences and/or leading occasional fieldtrips. Finally the Academic specialist may be responsible for providing general departmental support by performing administrative and other miscellaneous tasks such as coordinating maintenance of vehicles, equipment and property. This is a full-time position, renewable on a 12-month basis. Analytical and instrumentation experience is required. Applicants must have an M.S. degree or higher in earth science, environmental science, chemistry, biology or a related field.

IUPUI is an Equal Opportunity/Affirmative Action educator and employer and affords reasonable accommodations to persons with disabilities.

http://www.iupui.edu/~oeo/academicjobs/acad_jobs.htm

Isotope Laboratory Specialist, School of Ocean & Earth Science & Technology, University of Hawaii at Manoa. The Department of Geology & Geophysics is accepting applications for a full-time, non-tenure-track, 50% state and 50% other funded Specialist Faculty position to be filled at the Assistant level, to begin approximately June 2012 or as mutually acceptable. Position is annually renewable, subject to performance review and availability of other funds.
Duties include the management and operation of a radiogenic and non-traditional stable isotope and geochronology laboratory, which includes a Nu Instruments multi-collector ICPMS, two VG/Micromass multi-collector TIMS, a 12-detector alpha-spectroscopy system, and associated cleanroom and sample preparation laboratories (see www.soest.hawaii.edu/krubin/isolab.html); train and supervise laboratory users; plan, assist and troubleshoot analytical protocols with users; participate in the development of methods; participate in research projects; initiate and/or contribute to proposals for extramural support; participate in reporting of research results; maintain and repair lab equipment (including mass spectrometers); administer chemical and radioactive waste handling and safety protocols; set and maintain laboratory schedules; manage the fiscal operations of the facility; prepare annual and biannual laboratory reports; and supervise one or more laboratory technicians. Minimum qualifications: a M.S. degree in earth science, geochemistry, chemistry, or other physical science; 30 credits of additional relevant graduate coursework; and at least three years of experience with TIMS or MC-ICPMS analysis of, and laboratory methods for, chemical separation and purification of at least two of the following elements: Th, U, Nd, Pb, Os, Mg, Zn, Fe; ability to handle sensitive devices and equipment. Desired qualifications: a Ph.D. degree in the above-noted fields, interest in learning and using new analytical methods; skillful quantitative and verbal expression; experience in procurement and management of laboratory accounts; ability to build and maintain effective working relationships with facility users; interest in collaborating in ongoing research initiatives in the Isotope Laboratory, including work in the field or at sea, familiarity with U-series applications to the Earth Sciences; desire to develop an independent research program. Salary commensurate with qualifications and experience.

To apply, submit a CV and the names and contact information of three professional references, official transcripts (copies acceptable with application, originals required upon hire) to Isotope Specialist Search Committee, Department of Geology & Geophysics, SOEST, University of Hawaii at Manoa, 1680 East-West Road, POST606, Honolulu, HI 96822. Inquiries may be directed to Dr. Ken Rubin (808) 956-8973, krubin@hawaii.edu. Continuous recruitment. Review of applications will begin on 15 March 2012.

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The National Park Service, Natural Resources Stewardship and Science, Geologic Resources Division is now recruiting for a Geologist/Geomorphologist in the Geologic Features and Systems Branch, under the Geologist GS-1350 series, grade 12/13 and duty-stationed in Lakewood, Colorado. The announcements are open until March 20, 2012.

Title: Geologist/Geomorphologist
Series/Grade(s): GS-1350-12/13
Promotion Potential: GS-13
Duty Location(s): Lakewood, Co
Announcement No: WO-COAB-12-609854-MP WO-COAB-21-591307-DE
Open Period: 02/28 to 03/20
Click on the link below for more information http://www.usajobs.gov/GetJob/ViewDetails/310463400

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Postdoctoral Research Associate - University of Utah

A postdoctoral research associate position in isotope hydrology and hydroecology is available through the University of Utah Department of Geology and Geophysics (http://www.earth.utah.edu/). We are seeking a candidate with experience in stable water isotope (H and O) systematics to conduct observational and modeling studies of artificial water distribution systems in the western USA and their impact on local to regional hydro- and eco-systems. The position is available starting mid-late summer, 2012, with an initial appointment of 1 year.
and potential for renewal for one additional year. Applications will be reviewed on receipt and until the position is filled.

The postdoctoral researcher will have access to a wide range of analytical and modeling resources, including a cluster of new field-deployable isotope ratio infrared spectroscopy instruments for liquid and vapor-phase water measurements, traditional mass spectrometric instruments at the UU-SIRFER facility (http://sirfer.utah.edu/), and spatial analysis tools developed as a component of the IsoMAP project (http://isomap.org). A wide range of opportunities for collaboration and project and career development will be available in association with efforts such as the campus-wide Global Change and Ecosystems Center (http://environment.utah.edu/) and a newly funded NSF-Macrosystems Biology program in continental-scale isotope ecology (http://wateriso.eas.purdue.edu/itce/). Examples on ongoing research activities in our group are available at http://www.eas.purdue.edu/ireh/.

A strong background in isotope geoscience or a related area is required, and previous experience with spectroscopic measurement of water isotope ratios and/or GIS would be beneficial. This position is limited to applicants who are U.S. citizens. To apply, please send a current CV, brief description of your research experience and interests, and a list of 3 potential letter-writers to Gabe Bowen (gabe@purdue.edu).

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ARCADIS is seeking a detail oriented, well organized, graduate geologist with less than 2 years of related experience to join our Midland, Texas office.

Candidate will be responsible for assisting Project Managers and Task Managers to complete a variety of tasks including developing and implementing site investigation work plans, installation of monitoring wells, collection of soil and/or groundwater samples, and lithologic logging of borings.

Basic and Required Qualifications:
* Minimum years of experience: 0
* Education required: BA/BS Degree in Geology or expect to earn in the next 3-6 months

Additional and Preferred Qualifications:
* Education preferred: BS Degree in Geology
* Registrations/Certifications preferred: 40-hr. HAZWOPER
* Years experience preferred: 0-6 months
* Skills preferred: Microsoft Access, EXCEL, PowerPoint
* This position does require travel. Travel amount is greater than 50%.
* A valid driver's license and clean driving record is required for this position.
* This position does not manage others.

ARCADIS is an Equal Opportunity Employer M/F/D/V

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Postdoctoral position: Studying diffuse uranium release from mine waste rocks

Uranium ore has been mined in France for nearly 50 years from about 200 sites. This exploitation, which began right after World War II, ended in 2001 with the closure of Jouac site (Haute-Vienne). The evolutions of uranium mining industry in France led to the fact that AREVA is nowadays in charge of the reclamation and the
radiological and environmental survey of all these 200 sites. During the exploitation, 52 Mt of ores have been processed to produce about 76 000 t of uranium, 52 Mt of process mining residues and 200 Mt of waste rocks.

Waste rocks are overburden rocks overlying the ore or rocks not processed for their low uranium content. As they are initially located in contact with mineralized uranium zones, their uranium concentration is usually higher than the geochemical background. Eitherstocked in heaps or used to fill up open pits during restoration work (as cover of mine process residues storages), these rocks undergo a meteoritic alteration which has to be evaluated.

Indeed, weathering by meteoritic waters at the surface and through mine tailings can lead to mechanical fracture and mobilization of some components, such as uranium. At the same time or later on, secondary minerals neoformation can also concentrate these elements by sorption or precipitation processes, and thus impact on the kinetics of geochemical transfers. Some waste rocks heaps are vegetalized, even with the development of protosoils, creating a critical zone with specific characteristics. All these phenomena can lead to mass transfers that should be quantified to be able to limit uranium migration downstream of waste rocks heaps.

The goal of this study is to trace and identify reaction pathways controlling uranium mobility in waste rocks. As most of uranium orebodies that have been mined in France are located in granitic areas, the present study will focus on the sugergene evolution of granite from Limousin region. For this purpose, rock samples and water samples will be collected from several sites. A thorough study of the weathering alteration processes will be performed through the identification of the uranium-bearing phases, whether inherited or neoformed. These observations and characterizations will be performed by XRD, spectrometry techniques, ICP-MS, electron microscopy techniques (SEM and TEM), electron microprobe. Thorough spectroscopic characterizations on synchrotron beamline will bring information on uranium speciation. Last, aging experiments in the laboratory can be performed in order to focus on the most reactive mineral phases. The whole set of data will be used and integrated to geochemical modelings that take into account the main phenomena controlling uranium mobility.

Among the required competencies:
- Mineralogy
- Petrology
- Geochemistry of trace elements and/or uranium
- Knowledge of synchrotron analytical techniques
- Geochemistry and mineralogy of low temperature conditions and critical zone

Duration: 18 months (renewable)
Localization: IMPMC – UPMC (University of Paris VI) & AREVA (Paris)

Contacts: Please send CV and application letter to:
IMPMC – UPMC
Martine GERARD, martine.gerard@impmc.upmc.fr
Georges CALAS, georges.calas@impmc.upmc.fr

AREVA
Michael DESCOSTES, michael.descostes@areva.com;
Vannapha PHROMMAVANH, vannapha.phrommavanh@areva.com

********* HAVE A GREAT WEEKEND**********