

GEOBULLETIN

JULY 11TH 2014

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 Wednesday.

WEEKS LECTURE – FALL 2014

Date	Speaker	Institution	Host

JOB OPENINGS:

- [University of Hawaii PX² Beamline Scientist at Argonne](#)
- [Stable Isotope Laboratory Manager/Research Specialist - Carnegie Institution for Science in Washington, DC](#)
- [Postdoc Position at University of Rochester](#)
- [Origins Laboratory-Cosmochemistry/Geochemistry Postdoctoral Position Available - University of Chicago](#)
- [PhD opportunities in Canada – Call for candidates](#)
- [The Institute for Geosciences at the Faculty of Geosciences/Geography at the Johann Wolfgang Goethe-University Frankfurt invites applications](#)
- [Assistant Professor, Sedimentology/Basin Analysis Denison University](#)
- [The Department of Earth Sciences at Dalhousie University invites applications for a faculty position in Geophysics, Sedimentology, or Geochemistry](#)
- [Post-doc in experimental petrology - U. Minnesota](#)

JOB OPENINGS:

[University of Hawaii PX² Beamline Scientist at Argonne](#)

Px² Beamline Scientist/Compres Researcher

University of Hawaii NSF/COMPRES-sponsored project “Partnership for eXtreme Xtallography (PX²)” is looking to fill a regular, full time, non-civil service position, located at the Advanced Photon Source (APS) in Argonne, Illinois. Continuation of employment is dependent upon program/operational needs, satisfactory work performance, availability of funds, and compliance with applicable Federal/State laws.

DUTIES:

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- Design, build and maintain the state of the art instrumentation for the PX² project;
- Support user program in high pressure science at the PX² facility;
- Participate in project-related procurement, construction, commissioning and reporting;
- Build a user community for the new facility;
- Work closely with the project PI, staff of the APS host institution, GSECARS, and the COMPRES Technology Officer at Argonne in identifying, designing and implementing new experimental infrastructure for state of the art science at PX²;
- Build his/her own internationally competitive research program supported by extramural funds and utilizing facilities at available at PX² and the Hawaii Institute of Geophysics and Planetology;
- Perform other duties as assigned.

PRIMARY QUALIFICATIONS:

EDUCATION/TRAINING: Ph.D. in high pressure research, mineralogy, crystallography, condensed matter physics, solid-state chemistry/spectroscopy or closely related field.

EXPERIENCE: Track record demonstrated by publications in crystallography, spectroscopy, or synchrotron radiation related research;

ABIL/KNOW/SKILLS: Knowledge, considerable experience and understanding of synchrotron-related experimental techniques, computer programming, scientific instrumentation development, design and control; Excellent interpersonal, communication and presentational skills; Ability to interact effectively and diplomatically with staff and facility users at all levels; Ability to design, plan, organize, and implement projects and tasks within an allotted timeframe;

SECONDARY QUALIFICATIONS: Project management experience; Successful track record in applying for federal funding; Python and/or IDL programming experience; Hands-on experience with laser spectroscopy and laser heating.

INQUIRIES: For more information about the position, please contact Grace Furuya (808) 956-8344<tel:%28808%29%20956-8344>, gfuruya@soest.hawaii.edu<mailto:gfuruya@soest.hawaii.edu>.

HOW TO APPLY: All applications need to be submitted through the RCUH website. Please go to www.rcuh.com<<http://www.rcuh.com>>, click on "Employment"; select "Apply" and navigate to "See Job Announcements and/or Apply for a Job." The Job Opening ID for this position is 14326. You must submit the following documents online to be considered for the position: 1) cover letter, 2) resume with full publication list, 3) salary history, 4) names and contact information of 3 professional references, 5) copy of degree(s)/transcript(s)/certificate(s). All online applications must be submitted/received by the closing date (11:59 P.M. Hawaii Standard Time/RCUH receipt time) on August 8, 2014. RCUH is EEO/AA Employer.

Stable Isotope Laboratory Manager/Research Specialist - Carnegie Institution for Science in Washington, DC

The Stable Isotope Laboratory in the Geophysical Laboratory at the Carnegie Institution for Science in Washington, DC has an opening for a full time Laboratory Manager/Research Specialist. The lab is comprised of one Thermo Delta V Plus IRMS system coupled to a CE NC2500 elemental analyzer and one Thermo Delta XL Plus IRMS system coupled to a TC/EA. Funding is in place to purchase a second elemental analyzer. Responsibilities include general management and oversight of day-to-day operation of these facilities, training of postdocs and other visitors to the lab, and instrument maintenance. The Stable Isotope Lab supports the research of the Carnegie Staff Scientists and their collaborators within the disciplines of high-pressure experimental geochemistry and petrology, organic geochemistry, astrobiology and cosmochemistry. Participation in research and the development and application of analytical

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techniques to meet research goals is expected, and the opportunity for independent research is available and encouraged.

Minimum qualifications:

A M.S. in Earth Science with experience in operation of IRMS systems is required.

Desired qualifications:

A Ph.D. in Earth Science and direct experience in gas source, stable isotope mass spectrometry is preferred.

To submit an application, **go here** (<https://jobs.carnegiescience.edu/jobs/stable-isotope-laboratory-managerresearch-specialist/>). Only complete applications submitted via the Carnegie Institution of Washington website will be considered. Applications should include a cover letter outlining experience, a CV, and contact information for at least three references.

The prospective researcher will be working at the Geophysical Laboratory, Carnegie Institution of Washington in Washington, DC. The Carnegie Institution of Washington is an equal opportunity employer. All qualified applicants will receive consideration for employment and will not be discriminated against on the basis of gender, race/ethnicity, protected veteran status, disability, or other protected group status.

Postdoc Position at University of Rochester

The University of Rochester Ice Core Laboratory is inviting applications for a post-doctoral research associate. Our research group specializes in measurements of ultra-trace gas concentrations and isotopes in polar ice cores, with a focus on advancing the scientific understanding of atmospheric chemistry, climate and carbon cycle processes. http://www.ees.rochester.edu/people/faculty/petrenko_vasilii/index.html. We also conduct regular field expeditions to remote areas of Greenland and Antarctica <http://rochestericelab.wordpress.com>. This postdoctoral position is fully funded by the Packard Foundation Fellowship for Science and Engineering, and the start date and duration of the position are negotiable. The successful candidate would be encouraged to develop their own project, as well as work on a second project aimed at reconstructing past variations in abundance of atmospheric hydroxyl radicals.

The University of Rochester is a highly ranked research university, and Rochester's cultural, educational, and recreational assets consistently place the city in the top 10 places to live within the U.S.

To apply, please submit the following materials by August 15, 2014: 1) a cover letter highlighting why you would be a good fit for our research group in terms of your background as well as new skills you would bring, 2) CV, 3) PhD thesis abstract, 4) a short proposal (2 pages maximum, including any figures and references) describing a possible research project you would like to carry out at U Rochester, 5) contact information of 4 people who could provide a letter of recommendation. All materials should be submitted via email to Vasili Petrenko at vpetrenk@ur.rochester.edu.

Origins Laboratory-Cosmochemistry/Geochemistry Postdoctoral Position Available - University of Chicago

The Origins Laboratory of the Department of the Geophysical Sciences and the Enrico Fermi Institute at the University of Chicago (originslab.org) seeks applicants for a postdoctoral researcher position in isotope geochemistry-cosmochemistry. Although different backgrounds will be considered, experience in clean laboratory procedures and multicollector inductively coupled plasma mass spectrometry (MC-ICPMS) techniques is especially desirable. The main themes that are being developed are (i) mass-dependent isotope variations for tracing geo-bio cycles and igneous

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processes, (ii) stable isotope anomalies for characterizing the heterogeneity of the nebula and identifying new presolar phases, and (iii) radiogenic isotopes for constraining early solar system chronology. Completion of the Ph.D. is required. Initial appointment is for one year, renewable up to 2 times contingent upon good progress. Applications must be received by July 31, 2014; applications received after this date may be considered if the position is not filled.

A resume and the names of three references should be sent to Nicolas Dauphas (dauphas@uchicago.edu). The University of Chicago is an Affirmative Action/Equal Opportunity Employer

PhD opportunities in Canada – Call for candidates

Applications are invited for PhD positions to start in the fall 2014 or early 2015. ArcTrain is a program funded by the Natural Sciences and Engineering Research Council (NSERC) of Canada in partnership with the German Research Foundation (DFG).

ArcTrain offers the opportunity to join a network of internationally renowned researchers on a program which aims at developing professional skills through its international and interdisciplinary components. Students are offered a number of workshops and special courses, participation in research expeditions, and 4-12 months residency in a Canadian or German partner institution other than the one the student is enrolled in. Students will also be offered to attend a 'Floating University' in the North Atlantic or Arctic Ocean on Canadian and German research vessels.

Selected PhD Topics:

- **Iceberg calving and ice melange rheology**
Main supervisor: Christian Schoof (University of British Columbia)
- **Quantification of lateral exchanges of heat and salt between boundary currents and the Central Labrador Sea**
Main supervisor: Barry Ruddick (Dalhousie University)
- **The Greenland Ice Sheet during past interglacial periods**
Main supervisor: Shawn Marshall (University of Calgary)
- **Radioactive, radiogenic and light isotope signatures of subarctic rivers from eastern Canada**
Main supervisor: Claude Hillaire-Marcel (University of Québec in Montréal)
- **Paleoecology of the continental margins of northeastern Canada based of algal remains**
Main supervisor: André Rochon (University of Québec in Rimouski)
- **Productivity, ventilation and acidification of Labrador Sea in response to climate and atmospheric CO₂ changes**
Main supervisors: Anne de Vernal, Claude Hillaire-Marcel (University of Québec à Montréal) and Alfonso Mucci (McGill)

Note : The above list is not exclusive. Other research topics related to ArcTrain could be proposed with the support of an ArcTrain member (see <http://www.arctrain.ca/index.php/en/our-team/faculty>).

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Funding of \$21,000/year is offered for a total duration of 4 years. Descriptions of projects, procedure to apply and other information on ArcTrain are available at www.arctrain.ca. To discuss the projects or to propose a subject related to ArcTrain, please contact the supervisor(s), ArcTrain member(s) or ArcTrain coordinator (coordinator@arctrain.ca).

The Institute for Geosciences at the Faculty of Geosciences/Geography at the Johann Wolfgang Goethe-University Frankfurt invites applications for a Wilhelm Heraeus Endowed Professorship (W3) for Geophysics (with emphasis on Petrology)

Research will involve the investigation of physical, petrological and geochemical processes occurring in the Earth's mantle and crust. Possible directions of inquiry can include the role of volatiles in geodynamic processes, melting in different tectonic regimes, phase relations, recycling of crust into the mantle. Research should be complementary to the expertise existing in Frankfurt and focus on the application and development of physical, micro-analytical and/or geochemical methods with the potential coupling to high-pressure experiments to solve fundamental problems of the Earth's interior. Facilities at the Institute for Geosciences are perfectly suited for such investigations (for further details, please see www.ifg.uni-frankfurt.de/48934943 ausstattung). The successful candidate is expected to become actively involved in the Bachelor and Master of Geosciences programs, particularly in the fields of Geophysics and Petrology, additionally in Geochemistry and Mineralogy.

The successful candidate should be able to exhibit international competitive research experience, demonstrated by an accumulation of projects and publications. He/she will collaborate closely with already existing teams of the institute, possesses didactical skills as well as skills in personnel management. The applicant should provide a clear concept to establish interdisciplinary collaborative research projects with other faculty members in Geosciences and Physics, and possibly in other fields within the university.

The designated salary for the position is based on "W3" of the German university scale or equivalent. For further information regarding the general conditions for professional appointments, please see: <http://www.uni-frankfurt.de/aktuelles/ausschreibung/professuren/index.html>

Academics with an excellent record in research and teaching are invited to submit their applications accompanied by the usual documents (including CV, description of previous funding, publication list, teaching activities, statement of teaching and research interests) up to **August 1st, 2014** to the **Dean of the Faculty of Geosciences/Geography, Altenhöferallee 1, 60438 Frankfurt, Germany** or by e-mail to dekanat-geowiss@em.uni-frankfurt.de.

Assistant Professor, Sedimentology/Basin Analysis Denison University

Denison University invites applications for a tenure track position in the Department of Geosciences, to begin in August 2015. We seek a broadly trained scientist engaged in the study of Sedimentology and/or Basin Analysis. Successful candidates are expected to be outstanding teacher/scholars, and contribute to the continued growth of the Department and College. Candidates must have a Ph.D. at the time of appointment.

We require a colleague who is committed to teaching excellence in the liberal arts tradition, is field-based, has broad interests beyond their individual specialty, and will provide a balance of classroom, field, and laboratory experiences for our students. Candidates must have the desire and ability to teach courses at all levels of the curriculum. In addition, successful candidates are expected to maintain a vibrant, ongoing research program that actively incorporates undergraduate students.

Denison University is a highly selective, private residential liberal arts college enrolling approximately 2100 undergraduate students from across the country and around the world. The college is located in the village of

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Granville, Ohio, 25 miles east of Columbus. For more information about Denison, visit our website at www.denison.edu.

All application materials will be handled electronically at [https:// employment.denison.edu](https://employment.denison.edu). Applications must include: 1) a letter of application addressing the position requirements listed above; 2) a curriculum vita; 3) academic transcripts of undergraduate and graduate course work (unofficial acceptable); 4) a statement of teaching philosophy and experience; and, 5) a statement of your research program in a liberal arts context. In addition, please include the contact information for three persons who know you well, who will then be requested to upload reference letters. Completed application materials submitted by October 27, 2014 will receive full consideration, and evaluation will continue until the position is filled. We plan to meet with selected candidates at the 2014 GSA Annual Meeting in Vancouver, BC, Canada. Denison University is an Affirmative Action, Equal Opportunity Employer. To achieve our mission as a liberal arts college, we continually strive to foster a diverse campus community, which recognizes the value of all persons regardless of religion, race, ethnicity, gender, sexual orientation, disability, or socioeconomic background.

Assistant Professor - Geophysics, Sedimentology, or Geochemistry

The Department of Earth Sciences at Dalhousie University invites applications for a faculty position in Geophysics, Sedimentology, or Geochemistry. The appointment is tenure-track and will be made at the Assistant Professor level. Although only one appointment will be made at this time, we anticipate future appointments as the department enters a period of renewal. We are seeking highly motivated, international-calibre geoscientists who will contribute to the enhancement and growth of our

undergraduate, graduate, and research programmes. Applications are invited in areas that enhance and/or complement existing departmental strengths and offer opportunities for collaboration within the department and with the extended geoscience

community at Dalhousie and nearby academic and government institutions. In particular, the department is seeking to enhance our marine geoscience group in order to strengthen our alignment with the University Strategic Research Plan, which identifies Ocean Studies, Materials Science, and Energy as among Dalhousie's existing and emerging research strengths. The successful candidate is expected to develop a strong, externally funded research program and, in addition to teaching at the undergraduate and graduate levels, will supervise graduate and undergraduate research projects. Essential qualifications include a Ph.D. in Earth Sciences or closely related field, and significant research accomplishments in one or more of the fields listed above. Important assets include some combination of post-doctoral experience, undergraduate and graduate teaching experience, interaction

with industry, and a record of attracting funds from government and/or industry sources. The complete application should include: CV, list of publications, a summary of research interests, a statement of teaching interests and experience, self-identification of status in Canada (Canadian citizen/permanent resident, or not), and the contact information for at least 5 referees with knowledge

of your work and/or recognised expertise in your discipline. Letters of reference will be solicited by the Search Committee and should not be sent with the initial application. Assessment of applications will begin 10 October 2014 and continue until a suitable candidate is found. The application should be sent to: Search Committee, c/o Ann Bannon, Department of Earth Sciences.

Dalhousie University, PO Box 15000, Halifax, Nova Scotia, Canada B3H 4R2; tel. (902) 494 2358, fax (902) 494 6889, or e-mail: Ann.Bannon@Dal.Ca

The appointment will be effective 1 July 2015 but could be taken up at a later date.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents of Canada will be given priority. Dalhousie University is an Employment Equity/Affirmative Action employer. The University encourages applications from qualified Aboriginal people, persons with a disability, racially visible persons, and women.

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Information about our department, current faculty, and research and teaching programmes can be found at: <http://www.dal.ca/faculty/science/earth-sciences.html>. For the University Strategic Research Plan, go to: (http://www.dal.ca/dept/university_secretariat/university_senate/reports.html).

Post-doc in experimental petrology - U. Minnesota

Post-doctoral Fellowship – Experimental Petrology/University of Minnesota. Applications are sought for a post-doctoral fellow in the Experimental Petrology group at the University of Minnesota. The project is chiefly to investigate the behavior of nitrogen in early planetary differentiation, including studies of solubility and partitioning between silicate melts, minerals, core-forming liquids, and vapor. There are also opportunities for secondary projects of interest to the post-doc and PI. The position requires a Ph.D. in earth or affiliated sciences. Expertise in one or more of the following is desirable: experimental petrology, analytical spectroscopy (FTIR, Raman, etc.), microbeam (EMPA, SIMS) analyses, theoretical geochemistry (thermodynamics, phase equilibria). The appointment is initially for 1 year, with the expectation of renewal for a second. Ideally this position will begin in the Fall of 2014. Please send a letter of application, a CV, and contact information for two referees to Marc Hirschmann at mmh@umn.edu. Those who will be at the Goldschmidt conference in Sacramento next week are encouraged to get in touch before/during the meeting. The University of Minnesota is an equal opportunity educator and employer.

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