

GEOBULLETIN
APRIL 3RD, 2009

Geobulletin is distributed weekly, on Friday by E-mail. Contributions are requested! Anything and everything (well almost) that you want to see in print. If you have a news item, a request, an announcement etc. email it to geodept@geology.wisc.edu. or leave it at the reception desk, Room 236 by noon on Wednesdays.

LECTURE SCHEDULE ---- All lectures (unless otherwise noted) are held on Fridays at 3:30 PM in AB20 (Laudon Lecture Hall). Coffee & cookies are served in the lobby starting at 3:15 PM.

Apr. 3 - **WEEKS LECTURE CANCELLED** ----Stephanie Prejean (USGS Anchorage) (SPONSOR: THURBER)

Apr. 8 - Peter Cook, CSIRO, NGWA Darcy Lecturer
"Environmental Tracers in Modern Hydrogeology: Reducing Uncertainty in Ground Water Flow Estimation"

Apr. 10 - Joe Stoner (Oregon State University) (SPONSOR: CARLSON)
"Climatic implications of abrupt geomagnetic change"

Apr. 17 - Dept. of Geology and Geophysics – Board of Visitors Spring Meeting

Apr. 24 - Susanne Janecke (Utah State University) (SPONSOR: DEMETS)
"Reorganizing plate boundaries, evolving basins, pseudotachylyte, detachment faults, and crossing strike-slip faults: Southern California"

May 1 - Laurent Charlet, (Univ. Grenoble) (SPONSOR: SAHAI)

May 8 - Peter Visscher (SPONSOR: RODEN)
"Microbial mechanisms forming modern marine stromatolites - Using the present to predict the past"

UNDERGRAD LOOKING FOR POSSIBLE EMPLOYMENT FOR THE SUMMER:

(Nick Dosch) Sophomore Geology/Geological Engineering undergrad looking for lab summer employment. 10-20 hours a week. Email ndosch@wisc.edu, Phone 608-444-7531

SPRING BANQUET

The 2009 Departmental Spring Banquet will be held on Friday, April 17, at Olbrich Gardens beginning at 6:00 PM. Cost is \$15.00/person, and the signup deadline is Thursday, April 10. Dinner and drinks will be provided by Blue Plate Catering, with the following entree options.

Vegetarian Lasagna

Layers of Pasta, Fresh Steamed Spinach, Mushrooms, Leeks, Zucchini, Yellow Summer Squash, Peppers, and Onions combined with Three Cheeses and Marinara Sauce. Served with Tossed Garden Salad and Assorted Dressings

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Prosciutto Chicken

Prosciutto with Smoked Mozzarella, Caramelized Garlic, and Fresh Spinach wrapped in a tender Breast of Chicken and served with Garlic Mashed Potatoes

Tropical Tilapia

A light, white fish fillet that is tortilla crusted and topped with a lime and chipotle sauce to add a little zing. Served with Saffron Rice...very pleasing to the eye and palate...

Please contact Amalia Doebbert (doebbera@geology.wisc.edu) with any questions.

ANNOUNCEMENTS:

Subject: Graduate summer internships in volcano seismology

The University of Alaska Fairbanks (UAF) announces the availability of paid summer internships for U.S. graduate students from U.S. universities in seismology, crustal deformation, igneous petrology, and physical volcanology. Successful applicants will become members of a US-Russia-Japan team comparing the response of crustal magma systems to catastrophic decompression at Bezymianny and Shiveluch Volcanoes, Kamchatka, Russia, and Mount St Helens, Washington. The project is part of the National Science Foundation's program, Partnerships in International Research and Education (PIRE), which seeks to introduce US graduate students to internationally collaborative science.

The ideal student participant will be at an early or middle stage of her or his PhD program, be physically and mentally prepared for rigorous field investigations under difficult conditions, and have a strong interest in international collaboration and understanding. It is also desirable that the student's major advisor share an interest in the research and, although not a requirement, that the work can become a component of the student's PhD program. Complete announcement and application forms can be obtained at <http://gps.alaska.edu/PIRE> and by contacting the relevant science team leaders below. The deadline for application is March 1. Selections will be made by March 15. As required by the NSF, the competition is open only to US citizens or US permanent residents.

Seismology - Michael West (west@gi.alaska.edu)
Geodesy - Jeff Freymueller (jeff@giseis.alaska.edu)
Petrology/Volcanology - Pavel Izbekov (pavel@gi.alaska.edu)

For any students who might be interested: Misasa International Student Intern Program 2009 at the Institute for Study of the Earth's Interior (ISEI), Okayama University, Misasa, Japan

1. Institute for Study of the Earth's Interior, Okayama University, Japan would like to invite applications for the 2009 International Student Intern Program

2. About the institute

The Institute for Study of the Earth's Interior (ISEI) is a leading institute equipped with state-of-the-art experimental and analytical facilities. Active researches are being conducted in the basic research areas of isotope and trace element geochemistry, high-resolution geochronology, and high-pressure and temperature materials science, aimed at understanding the origin, evolution and dynamics of the Earth. The institute is rapidly developing into an international research and educational center for solid earth sciences through the embarkation of the Center of Excellence for the 21st Century (COE-21) program (Program Leader: Professor Eizo Nakamura), sponsored by the Ministry of Culture, Sports, Science and Technology of Japan (MEXT) in 2003, and is now constantly the host of a significant number of leading and young collaborative researchers from worldwide. The institute is located in Misasa town, which is well known in Japan for its hot-spring spa. For more information about ISEI, please visit the following website:

<http://www.misasa.okayama-u.ac.jp/>

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3. About the program

The annual Misasa International Student Intern Program for advanced undergraduate (3rd to 4th year) and master's course students has been planned to promote international collaborative research and education. During the intern program, students will work closely with ISEI faculty members and their research groups on currently active research projects at ISEI. Researches at ISEI generally fall into one of the following areas: (1) geochemistry, cosmochemistry and geochronology (major/trace element and isotope analyses of crustal and mantle derived magmas, xenoliths, melt inclusions and meteorites using SEM, ICP-MS, TIMS, SIMS, IRMS, XRF, etc. to unravel the origin, evolution and dynamics of the Earth and the Solar System), (2) high-pressure experimental mineral physics (including high-pressure experiments using multi-anvil press, studies of phase equilibrium, electrical conductivity, elasticity and rheological property using X-ray diffraction (XRD), resonance ultrasonic spectroscopy (RUS), impedance spectroscopy (IS), etc.), and (3) magmalogy and crystal chemistry (including high-pressure experiments using DAC/multi-anvil press/piston cylinder/IHPV, and NMR/Raman/IR spectroscopic measurements of minerals, melts (glasses) and fluids). Perspective applicants are encouraged to contact ISEI faculty member(s) for more information. It is hoped that through this program, the participants will acquaint themselves with the state-of-the-art research facilities and activities at ISEI, and gain first-hand scientific research experience. At the conclusion of the program, an intern symposium will be held for all the participants to deliver oral presentations of their work (in English).

4. Eligibility

The program is open to advanced undergraduate (3rd to 4th year) and master's course students majoring in earth sciences, physics, chemistry, materials sciences, or related fields, who have a strong interest in a career of scientific research. Students from either within or outside Japan, regardless of nationality, are eligible to apply. Communication skill in English is required.

5. Date and Period:

July 2 (Thu)-August 11 (Tue), 2009

6. Financial support:

Travel expenses and daily allowance will be fully covered, and accommodation in the Misasa guesthouse will be provided.

7. Number of participants:

About 10.

8. Application procedure:

The application form for the internship program is available from the following website.

<http://www.misasa.okayama-u.ac.jp/MISIP/2009/>

9. Application deadline:

April 30, 2009 (10 am, JST)

10. Contact information

The application should be sent to:

Yoshiko Nakano

Institute for Study of the Earth's Interior

Okayama University

Misasa, Tottori, 682-0193 Japan

E-mail: misip@pheasant.misasa.okayama-u.ac.jp

For inquires concerning the intern program, please contact Dr. Katsuyuki Yamashita, the program coordinator (coordinator@pheasant.misasa.okayama-u.ac.jp) or any other ISEI faculty members.

POSITION OPENINGS:

- The hard rock research group at the University of Tromsø, Norway, invites applications for a 3-year PhD position in a new research project "Strength and rheological evolution of the lower continental crust".
- The California Department of Conservation is accepting applications from qualified individuals for the position of Energy and Mineral Resources Engineer (EMRE) for the Divisions of Oil, Gas, and Geothermal Resources.

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- An 18 months post-doctoral position available in CEREGE Laboratory (IRD-CNRS-Université Aix-Marseille) in Aix-en-Provence (France).
- Department of Geography and Geology - University of Copenhagen - Post-doctoral position: Chemical dating of accessory phases
- Mississippi State University Department of Geosciences invites applications for a full-time, tenure-track, assistant professor position in geology.
- A great position for a 3 year lecturer in the Discipline of Geology and Geophysics at the University of Adelaide has just come up to complement our existing research strengths and teaching.
- The College of Lake County is a progressive two-year community college located in suburban Chicago in northeastern Illinois - Instructor, Earth Science
- The Department of Earth & Planetary Sciences at Washington University in St. Louis is hiring a full-time research scientist to oversee a new stable isotope biogeochemistry facility

PhD project in rock deformation

The hard rock research group at the University of Tromsø, Norway, invites applications for a 3-year PhD position in a new research project "Strength and rheological evolution of the lower continental crust". The group comprises 2 structural geologists, 2 petrologists/geochemists, and 3 postdocs. The project includes the study of high temperature natural shear zones in Northern Norway and experimental rock deformation at elevated pressures and temperatures.

The PhD-project will focus on experimental rock deformation on feldspars using solid medium Griggs-apparatus-technology. The analysis of the experimental microstructures will be combined with that of natural examples. We are seeking a highly motivated candidate with experience in one of the following fields: structural geology, deformation and reaction microstructures, deformation processes, mineralogy, petrology, and fluid-rock interaction. In addition, some knowledge or experience in the use of electron beam instruments, like SEM, microprobe, EBSD, etc. are preferred.

The successful applicant will work in an interdisciplinary team of petrologists and structural geologists in Tromsø, together with partner institutions in Switzerland, Germany, Australia, and the USA. The earliest start of the project will be July 1st. Informal enquiries and/or applications containing a full C.V., names and details of two professional referees should be addressed to **Holger Stunitz** (e-mail: holger.stunitz@uit.no, tel: +47 77 62 31 17).

Evaluation of applications will start **April 15th, 2009** and will continue until the position is filled. There will be an opportunity for interviews at the EGU meeting in Vienna.

The California Department of Conservation is accepting applications from qualified individuals for the position of Energy and Mineral Resources Engineer (EMRE) for the Divisions of Oil, Gas, and Geothermal Resources.

The Division regulates upstream oil and gas operations throughout the State of California. EMRE's conduct geologic and engineering studies of oil and gas fields and witness various field tests, verifying industry compliance with Division regulations. EMRE positions are located in Cypress, Ventura, Santa Maria, Bakersfield, Coalinga, and Sacramento.

As a California State agency, the department of Conservation, Division of Oil, Gas, and Geothermal Resources offers a stable work environment, competitive salaries, excellent training, opportunities for advancement and comprehensive health, dental, vision, and retirement benefits.

The EMRE is an entry-level position. Typically, minimum qualifications for the position are met with a 4-year degree in geology or petroleum engineering, or a related major. Interested individuals who meet the minimum qualifications as stated on the job announcement bulletin are encouraged to participate in the examination process.

To learn about the Department of Conservation, Division of Oil, Gas, and Geothermal Resources, and to access the examination bulletin, visit our website at www.conservation.ca.gov. You may also visit the State Personnel Board's website at www.spb.ca.gov for other information regarding employment with the State of California, Please contact Michael Ackerman at (916) 322-1015 if you have any questions.

An 18 months post-doctoral position available in CEREGE Laboratory (IRD-CNRS-Université Aix-Marseille) in Aix-en-Provence (France). The successful applicant will work in the framework of a research program looking at lake paleoenvironmental reconstructions based on diatoms oxygen isotopic composition.

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This post-doctoral position is funded by the 'French National Research Agency' (ANR Agence Nationale pour la Recherche). IPER-RETRO project 'Human perturbations impact on lake foods webs : a paleo-ecological approach' (<http://web.mac.com/jvittoz/iWeb/Site%207/Welcome>) is a multi-disciplinary program investigating over the past 150 years at an ecosystem scale the vulnerability and responses of four French subalpine lakes to perturbations such as fish introduction (Whitefish), changes in nutrient levels and global warming. The four selected sites are Lake Geneva, Lake Annecy, Lake Bourget and Lake Aiguebelette. The impacts of these perturbations on lakes food webs and on sedimentological processes will be investigated by combining paleolimnological, geochemical and ecological approaches on sediment archives. The comparison of these lakes contrasted in terms of perturbation intensity, will enable to assess the ecosystems responses to local and to global perturbations. The successful applicant will have to produce high-resolution records from two (Annecy and Lemman) lakes by using diatoms oxygen isotopic composition.

Laboratory work includes extraction and purification of diatoms from lake sediment cores, oxygen fluorination extraction line and mass-spectrometer measurements. Method developments are also expected.

Since oxygen isotope measurements from biogenic silica require precise and time-consuming laboratory work, we are seeking highly motivated and meticulous applicants with a solid background in stable isotope mass-spectrometry, geochemistry and biogeosciences. The position is available for 18 months.

A Scientific graduate degree and PhD (or equivalent) in geosciences, laboratory experience particularly geochemical methods of biogenic silica extraction and purification of diatoms from sediments and a familiar use of a mass-spectrometer are required.

The position is available for 18 months. The start date is as soon as possible. Closing date for applications: 15 May 2009
For additional details please contact Florence Sylvestre by phone +33-(0)4 42 97 17 80) or e-mail: <mailto:sylvestre@cerege.fr>
Please send your *application* including curriculum* vitae*, a *letter stating your *research* *interests and *experiences* (all documents in *one single* pdf-file) to:

Florence Sylvestre
CEREGE
Europôle méditerranéen de l'Arbois
13545 Aix-en-Provence cedex 4, France
or via e-mail to sylvestre@cerege.fr <<mailto:sylvestre@cerege.fr>>

Post-doctoral position: Chemical dating of accessory phases - Department of Geography and Geology - University of Copenhagen

A two-year post-doctoral position in chemical dating of accessory phases by electron microprobe is offered at the Department of Geography and Geology, University of Copenhagen, Denmark. The project will involve contributing to establishment and testing of the total Pb dating method on the electron microprobe in Copenhagen. The post-doc will apply the technique to a variety of geological problems in particular in collaboration with workers at GEUS (Geological Survey of Denmark and Greenland www.geus.dk) and others from the Geochemistry-Mineralogy research group (more details on ongoing research within the group can be seen on our homepage <http://geo.ku.dk/forskning/forskergrupper>).

The successful applicant must have a PhD in geoscience, will be highly motivated, creative and innovative with a strong background in geology, a dedicated interest in petrology, mineralogy and/or geochemistry and preferably with considerable experience in using an electron microprobe and/or other similar instruments. Previous experience with chemical dating of accessory phases is an advantage. Salary depends on seniority as regulated between the Ministry of Finance and The Danish Confederation of Professional Associations.

Applications should include a curriculum vitae including documentation for a PhD, list of publications, contact details for three personal references, and a short statement of personal research interests and plans. Further information can be obtained from Dr. Tod Waight (todw@geo.ku.dk).

The University of Copenhagen wishes to reflect the surrounding society and encourage all qualified applicants regardless of background to apply for the position.

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Applications should be sent electronically as pdf to job@geo.ku.dk closing date for application is April 14th 2009. Start date for the position is 1st June 2009.

Mississippi State University Department of Geosciences invites applications for a **full-time, tenure-track, assistant professor position in geology**. Starting date August 16th, 2009. ABD applicants will be considered, Ph.D. preferred. Although the specialty is open, an **ability to teach mineralogy and petrology is a must**. Applicant may also be required to teach courses in introductory geology, and area of specialty. The successful applicant will be expected to develop an externally-funded research program involving master's level and doctoral students and publish in peer-reviewed journals.

The department currently has twenty-nine faculty and instructors, of whom sixteen are tenure-track faculty, and six of those are geologists. The department offers the B.S. and M.S. degrees in Geosciences and beginning with the Fall of 2009, will be offering a Ph.D. in Earth and Atmospheric Sciences. The Department of Geosciences offers emphasis areas in: both broadcast and professional meteorology, climatology, environmental geoscience, geography, geographic information systems, and professional geology. In addition to the on-campus programs, the distance learning programs have an enrollment of more than 700 undergraduate and graduate students. Further information about the Department of Geosciences can be found at:

<http://www.msstate.edu/dept/geosciences/>.

Candidates should submit a letter of application, curriculum vitae, copies of transcripts, and names and addresses (including email) of three people who may be contacted for letters of recommendation to the below address. Applicants must complete a Personal Data Information Form (PARF # 4529) online at <https://www.jobs.msstate.edu/>. Screening of applicants will begin May 1st and continue until the position is filled. Mississippi State University is an Affirmative Action/Equal Opportunity Employer.

For further information contact:

Dr. Chris Dewey, Chair of the Search Committee

Department of Geosciences, P. O. Box 5448

Mississippi State, MS, 39762.

Phone: (662) 325-3915

E mail: cpd4@msstate.edu

Website: <http://www.msstate.edu/dept/geosciences/>.

A great position for a 3 year lecturer in the Discipline of Geology and Geophysics at the University of Adelaide has just come up to complement our existing research strengths and teaching.

Geology at the University of Adelaide is growing fast with very strong student numbers in both undergraduate, Honours (which is a year project based study after undergraduate) and PhD programs. It is largely because of this growth that the university is supporting an expansion in staff. The Discipline presently has 8 full time academic staff with a number of independently funded research staff and post-docs. We maintain a strong international research portfolio that is focussed into continental evolution, mineral exploration under cover and regolith and landforms and is largely encompassed within our new university research centre 'Tectonics and Resource Exploration (TREx)'. We have excellent on-site research facilities including TIMS lab, LA-ICPMS and solution-ICPMS instruments, a stable isotope mass spectrometer, microprobes, SEM's with CL, EBSD etc., TEMs, a Focussed Ion Beam instrument and a LA-ICPMS multicollector.

For further information and selection criteria, please go to <http://www.adelaide.edu.au/jobs/current/11187/#furtherinfo>

Please also contact me (Alan.collins@adelaide.edu.au), or the head of Geology and Geophysics

(Graham.heinson@adelaide.edu.au) if you have any queries, or want to know more about the position.

POSITION: **Instructor, Earth Science**

STARTING DATE: August 2009

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DESCRIPTION OF POSITION:

Responsibilities for this position include teaching a variety of courses in geology, such as, Physical Geology, Environmental Geology, Field Geology and Oceanography. Courses are taught both day and evening primarily at the Grayslake campus. Other required faculty duties include participation of Science Outreach Program, academic advisement to students, curriculum development, and service on college committees

QUALIFICATIONS REQUIRED:

Master's degree in Geology, demonstrated success and academic experiences with diverse populations and diverse teaching methods.

QUALIFICATIONS DESIRED:

Knowledge of geology and oceanography; teaching experience in Physical Geology, Environmental Geology, Oceanography, Field Geology, and Historical Geology; experience with GIS and alternative delivery methods to include online and/or hybrid course delivery.

CONDITIONS OF EMPLOYMENT:

This is a full-time, tenure-track faculty position. Salary placement is commensurate with education and experience. The minimum 2009-2010 nine-month base salary ranges from \$44,005 with a master's degree to \$57,240 with a doctorate in the subject field. Because health insurance participation is mandatory for new faculty and health insurance premiums are deducted from the base salary, each new faculty member receives a flexible compensation allowance of \$5,700 per academic year in addition to the base salary. This amount is intended to defray the cost of single medical insurance coverage. Optional contract for the summer session offers potential for significantly greater earnings. Faculty may be assigned to campuses other than Grayslake.

THE COLLEGE:

The College of Lake County is a progressive two-year community college located in suburban Chicago in northeastern Illinois, with a student enrollment of more than 16,000. Dedicated to excellence in teaching and learning, the College provides access to higher education, supports outreach to the community, and ensures accountability and continuous improvement. The College is committed to responding to the needs of its diverse community. The College offers courses in both day and evening at the Grayslake Campus, the Lakeshore Campus, the Southlake Campus, and other locations within the county as well as offering courses in various formats including offering courses online. Faculties are critical to the active governance structure at the College and opportunities to engage in activities outside the classroom are important to the professional development of individuals and the institution.

APPLICATION PROCEDURES AND DEADLINES:

For full consideration, applicants are expected to submit a completed application form, current resume, cover letter, three (3) letters of recommendation, and official transcripts of all degrees by **April 10th, 2009**.

For an application form, please visit our website www.clcillinois.edu. The College of Lake County is an equal opportunity employer and has a strong commitment to the principle of diversity. In that spirit, it seeks a broad spectrum of candidates including minorities, women, and people with disabilities.

*Applicants who will earn a Master's degree by June 2009 will be considered.

Isotope Biogeochemistry Research Scientist

The Department of Earth & Planetary Sciences at Washington University in St. Louis is hiring a full-time research scientist to oversee a new stable isotope biogeochemistry facility under the direction of Assistant Professor David Fike. Laboratory research focuses on analysis of carbon and sulfur isotopes in modern and ancient systems (additional information at: <http://biogeochem.wustl.edu>). The laboratory will include two gas source mass spectrometers (Delta V and MAT 253), specifically configured for high-precision sulfur (SO₂) and carbon (CO₂) isotope analysis, and associated peripherals.

The successful candidate will be an integral part of the research group. Expected activities include: improving extraction/purification and/or developing novel applications for carbon/sulfur isotope mass spectrometry; operation and

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maintenance of mass spectrometers and associated peripherals/vacuum lines; training and day-to-day oversight of undergraduate students; and lab safety. Active participation in original research is encouraged. Salary will be commensurate with experience. Applicants should have obtained a Ph.D. in isotope geochemistry (or related field) with prior experience using/maintaining gas source mass spectrometers. This is a non-faculty academic position not on the tenure track.

Washington University is an EO/AA Employer. To apply, please send cover letter, CV and names of 3 references to dfike@levee.wustl.edu. Application review will begin April 15, 2009 and will continue until the position is filled.

~ ~ ~ ~ ~ **HAVE A GREAT WEEK!** ~ ~ ~ ~ ~