GEOBULLETIN
MARCH 07, 2008

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. No more lectures scheduled for this semester.

SPRING 2008 WEEKS LECTURE SCHEDULE

March 7 ----- Francesca Smith ----- Northwestern

GENERAL TALK March 7, 2008 – Friday, 3:30 PM: "Ecological effects of past global warming recorded in plant lipid carbon isotope ratios"

The geologic record holds the history of past global warming events associated with rising atmospheric CO2 levels. Reconstructing the climatic and ecological changes associated with past warming events is critical to forecasting future responses to enhanced greenhouse effect from anthropogenic CO2 emissions. The abrupt warming of 5-8 ËšC that occurred 55 million years ago led to the warmest period in the last 65 million years. This warming is linked to rising CO2 levels and occurred geologically rapidly, in ~10,000 years. (Note that anthropogenic warming that will occur over centuries.) This event, known as the Paleocene-Eocene Thermal Maximum, is associated with a large negative carbon isotope excursion seen in both terrestrial and marine records. One puzzling feature of the isotope record is that the magnitude of the excursion is twice as large on land as in the marine. Compound-specific leaf-wax carbon isotope signatures in conjunction with recent megafloral discoveries suggest a paleoecological mechanism for reconciling terrestrial and marine records. Carbon and hydrogen isotope ratios of leaf lipids hold great promise for interpreting the ecological and hydrologic impacts of past global warming events on terrestrial ecosystems.

March 28 ------ Ira Pasternack - EnCana Oil & Gas (USA) Inc
April 4 ----- Martin Saar ----- University of Minnesota -----
April 11 ------- Laurie Brown ---- University of Massachusetts ----
April 18 ------- Christopher Kim – Chapman University
April 25 ----- Board of Visitors' Meeting ---- date reserved ----
May 2 ------ Clark Johnson – University of Wisconsin
May 9 ----- Sean C. Solomon --------- DTM/Carnegie Institution of Washington -----

FALL 2008 WEEKS LECTURE SCHEDULE
September 12 ------ Steve Holland --- University of Georgia

Larry Murdoch, Department of Geological Sciences, Clemson University
Joint GLE and Geology and Geophysics Seminars

General talk: "Can Hydraulic Fractures Save the Coastal Cities of the World?", Wednesday, March 12, 3:30 p.m., Engineering, Rm TBA

Specialized research talk: "Methods and Analyses of Hydromechanical Well Tests."
Thursday, March 13, time and room TBA

POSITION OPENINGS:

Graduate Student Peer Mentor Awards

Honor the graduate student in your department who takes the time to help others succeed in graduate school. Nominate them for the…

- Write a letter detailing how this graduate student exhibited mentorship qualities.
- Include the email address for you and for the nominee.
- Submit the letter to MGN in 408 Bascom Hall, or email it to MGN@bascom.wisc.edu by March 28th.
- Any student or staff can submit a nomination on behalf of a graduate student. Individuals or groups can combine to submit a single letter on behalf of a nominee.

Recipients will be honored at a reception on April 22th at 5pm at Memorial Union.

Questions? Contact mgn@bascom.wisc.edu.

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The Rocky Mountain Association of Geologists Foundation

has established the Veterans Memorial Scholarship to recognize all its veterans and to support graduate studies in geology. The Scholarship was initiated by the family and friends of Rocky Mountain region geologist and veteran Earl Griffith in his memory.

The Scholarship will be offered in the amount of $2,000. The deadline for the receipt of applications is April 4, 2008.

Please check the following website:
http://www.rmag.org/

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California State University, Los Angeles
Department of Geological Sciences

Position: One year Full-Time Temporary Faculty Position in Neotectonics/ Structural Geology
Starting Date: September 2008
Application Deadline: April 30, 2008

http://www.calstatela.edu/univ/hrm/forms/appl_emp.xls

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Differentiating between Climatic and Tectonic Influences in the Kyrgyz Tien Shan

A 3 year PhD position is anticipated to be available (pending funding approval) for this project, based at the University of Potsdam, Germany. The goal of the research is to use apatite fission track and (U-Th-Sm)/He thermochronology to delineate the Cenozoic thermal history of the thrust-fault-bounded and glaciated ranges in the Kyrgyz Tien Shan. An independent detrital record will be obtained from the adjacent foreland basin, constrained by magnetic stratigraphy. The spatial and temporal distribution of exhumation will provide a the basis for differentiating between climatic and tectonic driving forces.

A Diploma or a Masters degree in Geology is required for this position. Candidates with a strong 4 year Bachelors degree might be considered. A background in structural geology, thermochronology, sedimentology and/or basin analysis is desirable. Strong English language skills are necessary; familiarity with German or Russian would be helpful. The position will be paid a BATIIo/2 salary (about 1000 euro/month after taxes). To apply, please send your CV, an unofficial transcript, a statement of your research interests, and the names and contact details for three references. Applications should be sent by March 31st. Fieldwork is planned for late August - early September 2008.

Please send applications or enquiries by email to sobel@rz.uni-potsdam.de.
Note that I am presently in Melbourne, Australia, not in Germany!
More information about the department and the project supervisor are available at:
http://www.geo.uni-potsdam.de/
http://www.geo.uni-potsdam.de/mitarbeiter/Sobel/sobel.html

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Assistant Professor in Mineralogy
Department of Earth Sciences, University of Ottawa

The Department of Earth Sciences at the University of Ottawa invites applications for a non-tenure track Assistant Professor Position in Mineralogy starting July 2008, with a minimum fixed-term of 5 years. The candidate's specialty is open to any field related to mineralogy; a requirement for this position at Canada's premier bilingual university is the ability to teach courses in both English and French. The incumbent will teach three to four semester courses per year including undergraduate Optical Mineralogy course. The applicant will be encouraged to seek external funding, conduct independent research and supervise students' thesis projects. A PhD in Geology or any closely related field is required. An applicant close to completing a PhD may be considered.

The Department offers several undergraduate degree, MSc and PhD programs in Earth Sciences, and has a modern Teaching Microscopy Laboratory equipped with 18 research-quality petrographic microscopes and complete digital video system.

Appointment and salary
Starting date is July 1, 2008. A salary for Assistant Professor at the University of Ottawa ranges from $ 61,597/year to $85,194/year, and decided upon experience described in the Collective Agreement between the University and Association of Professors of the University of Ottawa.

The position may be extended after the fifth year. Furthermore, the Department is planning to advertise several tenure-track faculty positions in the coming years including one in the field of petrology/high-temperature geochemistry.

Application
An applicant should send a letter of application summarizing research interests and any teaching experience, a CV including a list of publications, and three names of references to the Department of Earth
Sciences, 140 Louis Pasteur, University of Ottawa, Ottawa, Ontario, K1N 6N5,Canada.
A review process will begin March 24, 2008.

Inquires and electronic applications should be addressed to estchair@uottawa.ca

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Volcano Seismologist, U.S. Geological Survey
From: John W Ewert <jwewert@usgs.gov>
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The USGS Volcano Hazards Team seeks a volcano seismologist to join its Volcano Disaster Assistance Program (VDAP). VDAP is a partnership program with USAID's Office of Foreign Disaster Assistance, which provides technical assistance in volcano monitoring science and technology to developing countries world-wide through crisis response, capacity building, and training. We seek an individual with a desire to contribute to the welfare of others by enhancing VDAP's program of international cooperation in volcano hazard mitigation. The successful candidate will conduct remote and on-site monitoring of volcanic seismicity, consult with and train foreign counterparts, install seismic networks, and conduct research in eruption forecasting. The position provides an opportunity to interpret seismicity that precedes and accompanies eruptions in varied geologic and tectonic settings, and thereby to advance understanding of the origin of volcanic earthquakes.
Investigations are designed to foster partnerships with international scientists, and with sensitivity to the publication and policy needs of colleagues and co-authors in other countries.
Qualifications are listed at http://www.opm.gov/qualifications/SEC-IV/B/GS1300/1313.HTM , and include experience in seismology and seismic monitoring, authorship of scientific publications, and contributions that have advanced the field of volcano seismology. Completion of a Ph.D. is desirable, but not required. Work experience in foreign countries and foreign language skills are also desirable. The position is based at the Cascades Volcano Observatory in Vancouver, WA; however, routine travel to collaborate with colleagues at other USGS offices is expected. In addition, the position may include as much as several months/year of international travel.
Appointment is initially made for 24 months. It can be extended noncompetitively up to a 4 year limit. This is a Federal Civil Service position with full benefits.
Starting salary is either $68,512 or $81,472 depending on qualifications.
Applicants must apply on line at http://www.usgs.gov/ohr/oars/ to be considered. If you have additional questions about the position, please contact John Ewert at 360-993-8912, Rose Wheeler at 650-329-4084 or Manuel Nathenson at 650-329-5292. Closing date for application is 24 March 2008.
Applicants must be United States citizens. The USGS is an equal opportunity employer. USGS Announcement WR-2008-0242.

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DSA Vacancy Announcement

Over the years we have developed an e-mail distribution list for vacancy announcements for our Distinguished Scholastic Achievement (DSA) appointments. This program was designed to assist in recruiting and attracting exceptional individuals into a variety of professional occupations. It was established to recruit professional employees at a level equivalent in pay of GS-07 for undergraduate applicants and at a level of pay equivalent to GS-09 through GS-12 for graduate level applicants. As As these jobs are administered by ERDA and not OPM, students with a 3.5 GPA (in a 4.0 system) can apply directly to the location.
Patricia J. Winston
HR Specialist
Vicksburg, CPAC

601-631-5862

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University Teaching and Research Position (limited to 6 years) [Akademische Rätin/Akademische Rat auf Zeit (A13)]

The position is available from 2 April, 2008, initially for three years, and renewable for a further three years, subject to a positive evaluation. The successful candidate will have the benefits associated with the German Civil Service.
Candidates should have a doctorate, a good track record of publications and have broad interests in Geosciences with a focus on **Experimental and Analytical Mineralogy. Preference will be given to candidates with experience with transmission electron microscopy.**
The successful candidate will be expected to conduct independent research and also to apply to research funding bodies for grants to further support their work. Ideally, the candidate's research will lead to collaborative projects with other members of the Institute.
The successful candidate will be responsible for teaching B.Sc.- and M.Sc.-level courses 4 hours per week during the semester), as well as assisting in the supervision of postgraduate students.

The Institut für Mineralogie is well equipped with experimental facilities including piston-cylinder apparatus, hydrothermal high pressure and gas mixing furnaces. A multi-anvil high P,T apparatus will be installed during 2008. Atomic Force Microscopy is available for in situ studies of crystal growth and dissolution in aqueous solutions. Analytical facilities include electron microprobe, excimer laser ablation ICPMS, and ZEISS LIBRA energy-filtered TEM, JEOL 3010 TEM with GIF, and scanning electron microscopes. The Centre for Geochronology within the Institute has extensive mass spectrometry facilities. The Institute has close collaboration with the Institutes of Geology, Planetology and Physics through the Interdisciplinary Centre for Electron Microscopy and Microanalysis (ICEM). Further information about the facilities and research in the Institute can be found on the homepage :

http://www.uni-muenster.de/Mineralogie/

The University seeks to increase the proportion of female members in the faculty and therefore urges interested female candidates to apply. In case of equal qualifications, preference will be given to disabled applicants.

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SUMMER CREDIT FIELD-CAMP COURSE

Colorado EcosystemField Studies

Earn 3 undergraduate credits in the foothills of the Rocky Mountains at the spectacular 1,200-acre, private Cal-Wood Education Center (near Jamestown, Colorado, 1 hr nw of Denver, 1/2 hr nw of Boulder)**Course 1- June 8-21 Course 2- July 6-19, 2008**

Explore & survey the concepts, components & conservation of the Colorado Front Range ecosystem:
*** Geology, geography & climatology**
*** Ecology, wildlife & forestry**
*** Field observation & research methods**
*** Ecosystem restoration & stewardship**
For course info contact:
Steve Johnson, Course Director
steve@calwood.org
(303) 859-0173, www.calwood.org
This outdoor course synthesizes and applies information learned in a classroom context to an authentic, complex, and dynamic environmental setting. Instruction is delivered with direct lecture, hands-on activities, guided exploration, field trips and guest speakers. Students base/tent-camp in a beautiful mountain location, hike daily, and participate in an intensiveeducational experience. Class size is limited to 16 students so register early to reserve a space.

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Postdoctoral Associate in Seismology/Crustal Deformation Studies of the Yellowstone

The University of Utah invites applications for a postdoctoral associate in seismology and/or geodetic imaging and related dynamics of the Yellowstone hotspot and its active magmatic-tectonic system. We are interested in a scientist to conduct research on such topics as earthquake source properties, integration of EarthScope GPS and strainmeter data with earthquakes and volcanic manifestations, volcano-fault stress
interactions, deformation modeling, geodynamics, etc. A rich source of data is available from the University of Utah Yellowstone seismic network as well data from the EarthScope PBO GPS and borehole strainmeter arrays and the USArray seismic network (see www.uusatrg.utah.edu and www.seis.utah.edu).
Interaction with students, faculty and with the Yellowstone Volcano Observatory (a partnership of the Univ. of Utah, the USGS, and Yellowstone National Park) as well as participation in earthquake response and
interpretation needs is expected. Computing experience with the Linux/ Unix operating system is required.

Applicants must have a Ph.D. in geophysics or closely related field. Appointment will be for one-year beginning summer 2008 or negotiable, with continuation contingent upon performance and funding. Applicants should email Robert B. Smith, rbsmith@earth.utah.edu):
1) A letter of Application including a statement of research interests and how the applicant is qualified to conduct the above research,
2) A current curriculum vitae, and

3) Names and email addresses of three persons who can provide recommendations for the candidate. Applications will accept until the position is filled. The University of Utah is an equal opportunity Employer.

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Assistant Professorship in Analytical Geochemistry,
Geological Sciences, Indiana University, Bloomington

THE DEPARTMENT OF GEOLOGICAL SCIENCES AT INDIANA UNIVERSITY, BLOOMINGTON, invites applications for a tenure-track faculty appointment at the Assistant Professor level specializing in analytical geochemistry. We seek an individual whose research centers on the use of multi-collector ICPMS to address fundamental questions in the geosciences. Preference will be given to candidates whose interests complement existing departmental expertise in areas of isotopic and molecular geochemistry, hydrogeology and mineralogy, and strengthen and augment current research programs in studies of the evolution and history of Earth and/or planetary systems. Our instrumental laboratories for biogeochemistry and analytical and environmental geochemistry will move to a new multidisciplinary science building scheduled for completion in June 2009,
which has space designated for an ICP-MS facility. Review of applications will begin on March 1, 2008 and will continue until a suitable candidate is recruited.
All enquiries and applications should be addressed to
Simon Brassell, Professor and Chair, Department of Geological Sciences,
Indiana University, Bloomington, IN 47405-1403
(simon@indiana.edu).

Please submit a letter of application, and a complete vita, with contact information and the names of at least three referees. *Indiana University is an equal opportunity/affirmative action employer*, and encourages applications from women and minority candidates.

Edward M. Ripley Professor of Geochemistry Indiana University
1005 East Tenth Street
Bloomington,IN 47405
Tel.:812-855-1196 Fax.:812-8557961

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SUMMER UNDERGRADUATE RESEARCH 2008

Study the Earth's interior through Independent Research using state of the art facilities with Mineral Physics Institute

Program

- Ten week at Stony Brook University working on projects in High-pressure research or Earth Sciences, June – August, 2008
- Design experiments, collect and interpret results
- Present finding to other Scientists

Eligibility

- Undergraduate majoring in any of the physical sciences or mathematics
- 60 academic credits completed
- Interest in research career in Earth Sciences
- U.S. citizens or permanent resident

To Apply

Go to www.mpi.stonybrook.edu/summerscholars
Print and complete the application form
Include a personal statement, official transcript and two letters of recommendation

Mail to
MPI REU Summer Program
Mineral Physics Institute
Stony Brook University
Stony Brook, NY 11794 -2100

Evaluations begin upon receipt of application, Selections begin March 27, 2008

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GEOTIMES, the monthly news magazine of the earth sciences, is now accepting applications for its 2008 summer internship. We are looking for individuals, preferably with a geosciences background, who are interested in science writing and journalism. Based at the American Geological Institute in Alexandria, Va., the internship is 12 weeks long and includes a $3,500 stipend. Please pass the attached flyer and information along to your students. The announcement is also posted on our Web site at http://www.geotimes.org/

We'd appreciate your help in getting the word out about this Opportunity. Please contact me with any questions.

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Meg Sever
Managing Editor, Geotimes
American Geological Institute
email: kms@agiweb.org

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Instrumentation Research Scientist

The Gemological Institute of America, located in Carlsbad, Calif., seeks an experienced Research Scientist to develop optical spectroscopic instruments, and to plan, organize, and conduct research for the purpose of resolving industry issues and developing intellectual properties for the educational mission of the Institute. Requirements: Ph.D or M.S. in physics, chemistry, material science, geology, or similar field; strong background in spectroscopy, developing optical spectrometers and related applications; computer skills. Knowledge of optical parts from the Ocean Optics and Avantes is a plus.
Primary duties include:

- Develops optical spectroscopic instrumentation (e.g., absorption and luminescence spectrometers in the UV-Vis-IR region); assists in other instrument maintenance.
- Contributes to developing applications where these spectrometers are used for studying and documenting gem materials (diamond, ruby, sapphire, pearls, and others)
- Assists in organizing research efforts to develop new identification criteria for natural, treated, and synthetic diamonds / colored stones / pearls; collects analytical data on gem materials and contributes to production
- Leads and/or contributes to research projects to include, but not limited to, sample preparation, data collection protocols, analysis, interpretation, and publication; input into annual research plans, department budgets, and status reports.
- Provides research presentations and publications to other GIA departments and to the general jewelry industry.

Please submit your resume and salary requirements by e-mail to recruitergtl@gia.edu. To learn more about GIA, visit our website at www.gia.edu.

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Misasa International Student Intern Program 2008 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 2008 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/

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 and geochronology (including major and trace element, and isotope analyses of Earth and planetary materials using ICP-MS, TIMS, SIMS, XRF, etc.), (2) high-pressure experimental mineral physics (including high-pressure experiments using multi-anvil press, and phase equilibrium, electrical conductivity, elasticity and rheological property measurements), and (3) crystal chemistry and magmalogy (including high-pressure experiments using DAC/multi-anvil press/IHPV, and NMR/Raman/IR spectroscopic measurements of minerals, melts and fluids, MD simulations and first-principles calculations). 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 1 (Tue)-August 8 (Fri), 2008

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 15

8. Application procedure: The application form for the internship program is available from the following website.

http://www.misasa.okayama-u.ac.jp/MISIP/2008/index.html

9. Contact information: The application should be sent to:
Ms. Yoshiko Nakano, Secretary,
Institute for Study of the Earth's Interior
Okayama University
Misasa, Tottori, 682-0193 Japan
E-mail:coe@misasa.okayama-u.ac.jp
For inquires concerning the intern program, please contact Dr. Xianyu Xue, the program coordinator (xianyu@misasa.okayama-u.ac.jp) or any other ISEI faculty members.

TATSUKI TSUJIMORI tatsukix@misasa.okayama-u.ac.jp
ISEI, Okayama U.; Misasa, Tottori 682-0193, Japan
phone/fax: +81-858-43-3772 SkypeID: tatsukix

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

********** **HAVE A TERRIFIC WEEKEND!** **********