

GEOBULLETIN
DECEMBER 12, 2008

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.

FALL 2008 WEEKS LECTURE SCHEDULE

PROF. STEPHEN HASIOTIS
DEPARTMENT OF GEOLOGY
THE UNIVERSITY OF KANSAS

DEC 12TH, FRIDAY 3:30 PM, ROOM 140,
WEEKS HALL

**"TRACES OF LIFE ON LAND: USING ICHNOLOGY TO
UNDERSTAND THE DIVERSITY, DISTRIBUTION, AND
EVOLUTION OF SOIL BIOTA IN THE CONTINENTAL
REALM"**

December 19 ----- No weeks lecture so far...

Computer desk in good condition free to a good home! See or email Dave Mickelson

(mickelson@geology.wisc.edu) or A258 Weeks.

David M. Mickelson, Emeritus Professor and Senior Scientist

Department of Geology and Geophysics

University of Wisconsin

1215 West Dayton St.

Madison, WI 53706

Phone: 608-262-7863

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FAX: 608-262-0693

Student internships for undergrad through doctoral students.

The EPA National Network for Environmental Management Studies is accepting applications for the 2009 EPA-NNEMS fellowship program. Although these awards are called fellowships, they are more accurately described as research internships at EPA offices. Information on opportunities can be found on-line at <http://www.epa.gov/enviroed/NNEMS/2009projects.html>. The application deadline is Feb.

POSITION OPENINGS:

- The University of Nantes/CNRS joint research Unit for Interdisciplinary Chemistry: Synthesis, Analysis, Modelling (CEISAM, UMR CNRS6230) Nantes, France seeks to recruit a *Senior Technical Assistant* in Analytical Chemistry for a fixed-term contract of 10 months
- Louisiana State University - Field Camp Director/Coordinator of Undergraduate Studies/Instructor
- Tenure-track Faculty Position in Mineralogy/Petrology at Northern Illinois University
- Faculty Position in Experimental AMS at Purdue University
- A postdoctoral position is immediately available in the Petroleum Geochemistry group, School of Geology and Geophysics, University of Oklahoma to work on a project related to unconventional gas sources
- The Institute of Geophysics and Planetary Physics (IGPP) at Scripps Institution of Oceanography (SIO) at the University of California San Diego (UCSD) has openings for one or more postdoctoral scientists as Green Scholars
- Environmental Assessments Specialist, Illinois State Geological Survey, Institute for Natural Resource Sustainability - University of Illinois at Urbana-Champaign
- The Department of Geosciences at the University of Massachusetts, Amherst invites applications for a Post-Doctoral Position in structural geology, petrology, geochronology, and electron microprobe analysis.
- A postdoctoral position in development of spectroscopic field instruments for isotopic analyses biogenic gas is available starting Jan. 1st 2009 at the Dept of Geosciences, Princeton University.
- A one-year fellowship (about €16,000 after taxes) is available at the Istituto Nazionale di Geofisica e Vulcanologia (INGV) - "Sezione Osservatorio Vesuviano", Naples, Italy, in the frame of the research project SPeeD – DPC "Scenari di Pericolosità e Danno – Task 2"

POSITION OPENINGS:

Senior Technical Assistant (Assistant Engineer) in Analytical Chemistry

The University of Nantes/CNRS joint research Unit for Interdisciplinary Chemistry: Synthesis, Analysis, Modelling (CEISAM, UMR CNRS6230) Nantes, France seeks to recruit a *Senior Technical Assistant* in Analytical Chemistry for a fixed-term contract of 10 months, with the possibility of renewal for a further term of 10 months.

You will join the Group for the Elucidation of Biosynthesis by Isotopic Spectrometry (EBSI) and will take charge of the running and use of an Isotope Ratio Mass Spectrometer (IRMS) with two interfaces (elemental analyser with oxidation/pyrolysis; gas chromatograph). The spectrometer was installed in 2007 and offers a modern research tool.

You will be responsible for the routine operation of the machine and resolving faults. You will need to be familiar with an IRMS and capable of setting up and verifying the correct function of the machine in different modes, and of identifying and correcting anomalies. You will be responsible for the day-to-day management of the facility, including ordering of consumables and gasses. You will take part in the preparation of samples from a diversity of biological materials, and in data processing.

Your position will involve interacting with a number of different project leaders and other support staff. You will need to be interested in instrumentation and in getting maximal performance from your spectrometer.

The position requires a minimum of a Technical Diploma but several years of experience in IRMS will be required. Candidates with experience in GC-MS who show an aptitude for training in IRMS will also be considered. Evidence of effective teamwork will be an advantage.

The position is due to start in February 2009 but the exact date is open to negotiation.

The post is paid at 1546 € and will additionally include the employer's contribution to social security and health cover.

Further details of the activities of the Research Unit may be found on the site: <http://www.sciences.univ-nantes.fr/CEISAM/ceisam.php>

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Send your application letter with a curriculum vitae and a brief description of your experience to: Illa TEA at e-mail <illa.tea@univ-nantes.fr> to arrive not later than *16 January 2009*.

Dr Illa TEA
University of Nantes,
Unit for Interdisciplinary Chemistry: Synthesis, Analysis, Modelling (CEISAM)
UMR CNRS 6230 UFR des Sciences et Techniques
BP92208 Bât n° 9
2, rue de la Houssinière
44322 Nantes Cedex, France
Tél: +33(0)251125725
fax: +33(0)251125712
e-mail: illa.tea@univ-nantes.fr

The Department of Geology and Geophysics at Louisiana State University invites applications for Field Camp Director to begin April 1, 2009. The successful candidate must have a Ph. D. in Geology, Geophysics, or a related field at the time of appointment. Teaching and/or administrative experience is preferred. The successful candidate will be responsible for the planning, oversight and operation of personnel, facilities and instructional programs at the Charles Barney LSU Geology Field Camp, as well as a portion of summer teaching duties at the camp. During the academic year, she/he will teach introductory courses in geology and supervise graduate students in the teaching of introductory physical and historical geology laboratories.

Established in 1928, Camp Barney is an all-inclusive field camp with its own permanent living and dining quarters located on 1,300 acres in the Front Range of the Colorado Rocky Mountains, a few miles southwest of Colorado Springs. The region's diverse geology makes Camp Barney an ideal location for a field-based geology program. The core mission of field camp is to provide rigorous training in field geology. Programs currently using the field camp facility include the 6-credit **Senior Field Camp** for upperclassmen who receive advanced field experience and instruction in geologic mapping, and the 8-credit **Freshman Field Camp**, an introductory geology course that both the Geology & Geophysics and Petroleum Engineering departments use to recruit top high-school students. See <<http://www.geol.lsu.edu/>> for more information regarding field camp, faculty, facilities, and research programs.

An offer of employment is contingent on a satisfactory pre-employment background check. The review process will begin January 5, 2009. The search will continue until a suitable candidate is found. Interested persons should send a copy of their vita (including e-mail address), and the names, postal and email addresses, and phone numbers of at least three references to: Field Camp Search Committee, Department of Geology & Geophysics, Louisiana State University, Ref. #028085, Baton Rouge, LA 70803.

Note: Representatives of the Department will be at the 2008 AGU Fall Meeting at San Francisco.

LSU IS AN EQUAL OPPORTUNITY/EQUAL ACCESS EMPLOYER

Tenure-track Faculty Position in Mineralogy/Petrology at Northern Illinois University

The Department of Geology and Environmental Geosciences at Northern Illinois University invites applications for an anticipated tenure-track position at the Assistant Professor level to begin in August, 2009. We seek an individual whose research interests are in the broad areas of mineralogy, petrology, or a closely allied field. We expect the successful applicant to establish a vigorous externally funded research program that integrates with one or more of our existing strengths in experimental mineralogy/petrology, geochemistry, igneous petrology, mineral physics, planetary geology, structural geology, and/or volcanology. He/she will also be expected to supervise Ph.D. and M.S. students and have a commitment to excellence in teaching at both the undergraduate and graduate levels. The department's facilities include an array of analytical instruments (e.g. electron microprobe, X-ray diffractometer, ion chromatograph, mass spectrometers) and field equipment. Further, NIU is a part of the CARS research consortium at the nearby Advanced Photon Source of Argonne National Laboratory. Applicants who can utilize or expand existing facilities will receive special consideration. A Ph.D. in the Geosciences or a related field is required at the time of appointment. The department offers programs leading to the B.S., M.S., and Ph.D. degrees, and currently has 13 faculty members, whose research and teaching interests are described on our web site at <http://www.niu.edu/geology/>.

Applicants must submit a letter of application, curriculum vitae, statements of teaching and research interests, and list of at least three references to: James Walker, Search Committee Chair, Department of Geology and Environmental Geosciences, Northern Illinois University, DeKalb, IL 60115. Complete applications must be received by January 12, 2009. AA/EEO Institution.

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PETROLEUM GEOCHEMISTRY GROUP UNIVERSITY OF OKLAHOMA

A postdoctoral position is immediately available in the Petroleum Geochemistry group, School of Geology and Geophysics, University of Oklahoma to work on a project related to unconventional gas sources. There are multiple aspects to this position and it is related to gases from the Barnett Shale, Fort Worth Basin, Woodford Shale, Anadarko Basin and the various gas producing regions of the Rocky Mountains. Isotopic characterization and compositional analyses of the gases along with the characterization of source facies are being used to provide a comprehensive understanding on the origin of the gas in these areas. In addition gas isotopes are being used to investigate the thermal maturity trends in the basins and source rock specific kinetics will be obtained for these trends. The results will be used to predict the source of the gas in different parts of the basin, total volume of gas generated, maturity of gas, timing of gas generation, gas composition (e.g. wetness), gas migration pathways, and compartmentalization within the fields.

Ideally we are looking for someone with a background in gas geochemistry and experience with stable isotopes. However anyone with a good background in other areas of organic/petroleum geochemistry is strongly encouraged to apply.

If interested or if you know of any potential candidates please send an email to me at [pphilp@ou.edu] and I will answer any questions or provide further information.

GREEN SCHOLAR / POSTDOCTORAL POSITIONS AT IGPP / SCRIPPS INSTITUTION OF OCEANOGRAPHY- UCSD

The Institute of Geophysics and Planetary Physics (IGPP) at Scripps Institution of Oceanography (SIO) at the University of California San Diego (UCSD) has openings for one or more postdoctoral scientists as Green Scholars. Joint funding from the Green Foundation for Earth Sciences and extramural sources associated with specific research projects is available to support postdoctoral positions in a broad range of research areas in geophysics beginning in the first half of 2009. We will review applications from all subfields of geophysics. Applicants should identify their primary field(s) of interest for postdoctoral research.

The positions are available for one year and are renewable subject to satisfactory performance and availability of funds. Salary will be determined by UCSD, commensurate with qualifications and experience and based on UC salary scales. Applicants should send a 1-2 page statement of interest and a Resume with the names of at least two references, immigration status, and the expected PhD completion date to:

Green Scholar Selection Committee c/o Michell Parks
Institute of Geophysics and Planetary Physics (IGPP)
Scripps Institution of Oceanography
University of California, San Diego
9500 Gilman Drive, MC 0225
La Jolla, CA 92093-0225

Review of applications will begin on December 1, 2008 and will continue until the positions are filled. The University of California is an equal opportunity / affirmative action employer with a strong institutional commitment to the achievement of diversity.

Faculty Position in Experimental AMS at Purdue University

The Purdue Rare isotope Measurement Laboratory (PRIME Lab) is seeking application for a faculty position in experimental Accelerator Mass Spectrometry (AMS) and/or the use of cosmic-ray produced (cosmogenic) nuclides as tracers or chronometers. Prime Lab is a national facility that supports researchers at Purdue and from other research and academic institutions in geoscience and biomedical application. The successful candidate is expected to have expertise in developing new AMS techniques, as well as a scientific program that utilizes AMS. More information about the Purdue University AMS laboratory is available at the PRIME lab website <http://www.physics.purdue.edu/primelab/index.php>

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**Environmental Assessments Specialist - Illinois State Geological Survey -Institute for Natural Resource Sustainability
University of Illinois at Urbana-Champaign - This position is based at our 203 West Curtis Road, Savoy, Illinois, location.**

We are seeking an individual(s) (up to three, depending on pool of applicants) to perform environmental site assessments and evaluate potential environmental hazards and risks for Illinois Department of Transportation (IDOT) infrastructure improvement projects.

Responsibilities: This position will involve conducting on-site inspections and interviews; conducting field testing; collecting, reviewing, and evaluating site-specific historical, laboratory, geological, and environmental data; synthesizing and analyzing collected data; writing reports detailing the findings; coordinating staff activities in the collection of data; and participating in other geologic/environmental research.

Qualifications: A background in the geosciences with a bachelor's degree in geology, environmental science, engineering geology, civil or environmental engineering, physical geography, or related discipline, with two years of related experience beyond the degree. Experience with field techniques and equipment. Ability to interpret geologic maps, describe geologic materials, and map the locations of those materials. Ability to accurately collect, analyze, and interpret data from various information sources. Ability to evaluate potential environmental hazards and risks. Ability to write comprehensive technical reports. Ability to prioritize, organize, and handle heavy workloads with multiple deadlines. Ability to use sound judgment in decision-making. Strong interpersonal skills to develop good working relationships. Ability and willingness to effectively contribute and lead as part of a team. Proficiency in word processing, spreadsheet, and graphics software. Ability to work independently with off-site supervision. Ability to travel, including up to a work week of consecutive nights of overnight travel, and conduct field work, some of which may be under less than ideal conditions (inclement weather, remoteness, site security concerns, moderate physical exertion, heavy traffic). Must have a valid driver's license. Must adhere to the IDOT property assessment program health and safety plan, which includes having or acquiring 40-hour OSHA hazardous waste site worker training, followed by 8-hour annual refresher training, and undergoing annual physical examinations as part of the medical monitoring program for hazardous waste site workers (all provided at the expense of the project). Must be willing, with appropriate training, to work in areas of potentially unknown hazardous materials.

This is a regular full-time 12-month position. The starting date is negotiable after the closing date. Salary is commensurate with experience.

To ensure full consideration, applications must be received by January 5, 2009. Qualified candidates must submit a letter of application which details qualifications noted above, résumé, working e-mail address, and the names, addresses, phone numbers, and e-mail addresses of three professional references to:

**Lori Walston, Human Resources
Illinois State Geological Survey
615 East Peabody Drive
Champaign, IL 61820
217-244-2401**

walston@isgs.illinois.edu
www.isgs.illinois.edu

The University of Illinois is an Affirmative Action, Equal Opportunity Employer.

POST-DOC POSITION: MONAZITE GEOCHRONOLOGY, GEOCHEMISTRY, AND TECTONIC ANALYSIS

The Department of Geosciences at the University of Massachusetts, Amherst invites applications for a Post-Doctoral Position in structural geology, petrology, geochronology, and electron microprobe analysis. This one-year position (extendable to two years) is specifically aimed at the petrologic and structural applications of electron microprobe geochronology and trace element analysis. UMass has developed an optimized electron microprobe (with Cameca, France) that is specifically designed for the exploration of techniques for trace element and age analysis of minerals (e.g. monazite, xenotime, uraninite, zircon). This project includes optimization of hardware, software, standards and techniques. Integration of trace elements in petrologic systems, and synthesis and analysis of standards for calibration, background measurement, and interference studies are of particular interest for this position. The successful applicant will collaborate with UMass Geosciences faculty (and associates), and will be directly involved with improvements and modifications to dating techniques and especially with the application of the new techniques to geologic problems, particularly in metamorphosed and deformed rocks.

Applicants must have completed a Ph.D. in geology, must have experience with computer programming languages and with various computer operating systems (MS Windows, Sun-Solaris). Must be familiar with the theory and application of electron beam microanalysis and should have direct analytical experience with a wavelength-dispersive electron microprobe.

Please send a letter of application, resume, and two reference letters (e-mail or hard copy) to Dr. Michael Jercinovic, Dept. of Geosciences, University of Massachusetts, 611 North Pleasant Street, Amherst, MA 01003-9279. Review of applicants will begin on December 8th, but the

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position will remain open until a successful candidate is identified. The University of Massachusetts is an Affirmative Action Employer/ Equal Opportunity; women and members of minority groups are encouraged to apply.

POSTDOCTORAL RESEARCH FELLOWSHIP IN ISOTOPIC COMPOSITION OF BIOGENIC GAS BY LASER SPECTROSCOPY

A postdoctoral position in development of spectroscopic field instruments for isotopic analyses biogenic gas is available starting Jan. 1st 2009 at the Dept of Geosciences, Princeton University. The project focuses on development and conversion of a Cavity Ringdown Spectrometer for C and H isotopic analyses of methane to TRL6, flight capable level for Mars or Titan missions. The project involves the close collaboration with the Mahaffy laboratory at Goddard Space Flight Center, the Lehmann laboratory at the Univ. of Virginia, the Kessler laboratory at Texas A&M and the Sherwood Lollar laboratory at the Univ. of Toronto. The position is renewable up to three years contingent upon satisfactory performance. A Ph.D in electrical engineering, chemistry or geochemistry is required. Specialization in laser spectroscopy is desired. The successful candidate will be supervised by T.C. Onstott <<http://geoweb.princeton.edu/people/faculty/onstott/index.html>>, Dept. of Geosciences and work closely with Claire Gmachl <<http://www.ee.princeton.edu/people/Gmachl.php>>, Dept. of Electrical Engineering. To apply, send a cover letter, a CV including publications, brief statement of research interests and goals and contact information for three references to: geojobs@princeton.edu <<mailto:geojobs@princeton.edu>> and tullis@princeton.edu <<mailto:tullis@princeton.edu>>. Princeton University is an Equal Opportunity employer and complies with all applicable EEO and affirmative action regulations and particularly welcomes applications from women and members of minority groups.

A one-year fellowship (about €16,000 after taxes) is available at the Istituto Nazionale di Geofisica e Vulcanologia (INGV) - "Sezione Osservatorio Vesuviano", Naples, Italy, in the frame of the research project SPeeD – DPC "Scenari di Pericolosità e Danno – Task 2"

The research will be focused on modeling hazard related to tephra fallout. Candidates must submit their applications by 11 December 2008, in compliance with the requirements listed in the call for applications, available (in Italian only) at

http://www.ov.ingv.it/doc/concorsi/Bando%20Borsa_%2022_08.pdf

In particular, candidates must have some skills in the following fields:

- Earth/Environmental Sciences;
- Computational Sciences;
- Fluid dynamics/Meteorology/Atmospheric Sciences.

For further information you may contact one of the involved researchers:

Giovanni Macedonio (macedon@ov.ingv.it) Antonio Costa (costa@ov.ingv.it) Arnau Folch (arnau.folch@bsc.es)

~ ~ ~ ~ ~ ~ ~ ~ **HAVE A GREAT WEEKEND!** ~ ~ ~ ~ ~ ~ ~ ~