

# *GEOBULLETIN*

## *December 7, 2007*

**FALL 2007 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**

January 25 ---- Clark Johnson ---- University of WI-Madison ---- Astrobiology

February 1 ---- Kate Freeman ---- Penn State ----

February 8 ---- Neil Shuban ---- University of Chicago ----

February 15 --- Linda Hinnov ---- The Johns Hopkins University ----

February 22 ---- David Wesolowski ---- ORNL ----

February 29 ---- Gene Hunt ---- Smithsonian ----

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

#### **March 28 ----**

April 4 ---- Martin Saar ---- University of Minnesota ----

April 11 ---- Laurie Brown ---- University of Massachusetts ----

#### **April 18 ----**

April 25 ---- Board of Visitors' Meeting ---- date reserved ----

May 2 ---- Dave Deamer ---- University of California – Santa Cruz

May 9 ---- Sean C. Solomon ---- DTM/Carnegie Institution of Washington ----

### **FALL 2008 WEEKS LECTURE SCHEDULE**

September 12 ---- Steve Holland --- University of Georgia

### **GEOCLUB** ----

Annual holiday party is tonight, December 7<sup>th</sup> at 6:30pm in the 9th floor lounge of Van Vleck Hall (where it was held last year). Since this will be a potluck event, there is no charge to attend. The GeoClub will provide beverages, as well as a deep fried turkey. As usual, we will be joined in our merry-making by Santa and his elves. For those of you with children, please note: Santa will have a gift for each child and respectfully requests that parents do not bring additional gifts. If you have a gift for an *adult* that you would like Santa to give, please bring it with you to the party.

**Geoscience Student Spring Internship in Public Policy** ---- The American Geological Institute (AGI) seeks outstanding geoscience students with a strong interest in federal science policy for a semester-long internship in geoscience and public policy in Washington DC. Interns will gain a first-hand understanding of the legislative process and the operation of executive branch agencies. They will also hone their writing and Web publishing skills. AGI is planning to accept one intern for spring 2008 at a fixed stipend of \$4,500 for fourteen weeks. The application deadline is December 21, 2007. By geoscience students, mean undergraduate and masters students in atmospheric, oceanic, earth, environmental or soil sciences or a related field of engineering (primarily geotechnical, mining or petroleum). Any student who is working toward a degree that reflects the

broad spectrum of professionals who are members of AGI's 44 geoscience member societies is welcome to apply. More information is available at <http://www.agiweb.org/gap/interns/index.html>.  
Linda Rowan ---- Director of Government Affairs ---- American Geological Institute ----- 4220 King St ----- Alexandria VA 22302 ----- Phone: 703-379-2480 x228 --- FAX: 703-379-7563 ----- email: [rowan@agiweb.org](mailto:rowan@agiweb.org) ----- website: [www.agiweb.org](http://www.agiweb.org)

**National Oceanic & Atmospheric Administration** ---- Educational Partnership Program -----  
2008 NOAA Ernest F. Hollings Undergraduate Scholarship Program ----- Must be a US citizen, have a 3.0 GPA or better, majoring in NOAA related disciplines, including oceanic environmental and atmospheric sciences, math, engineering, remote sensing technology, physical and social sciences including, geography, physics, hydrology, policy, geomatics or teacher education that support NOAA's programs and mission. For more information contact Chantell Haskins at 301-713-9437 Ex 125 or [StudentScholarshipPrograms@noaa.gov](mailto:StudentScholarshipPrograms@noaa.gov) or go to <http://www.oesd.noaa.gov>. Application deadline is February 8, 2008. References mailed by the referee must be received by February 8, 2008. Faxed Applications or supporting materials will not be accepted. Applications may be emailed to [StudentScholarshipPrograms@noaa.gov](mailto:StudentScholarshipPrograms@noaa.gov) or mail hard copies to: NOAA/Office of Education --- Hollings Scholarship Program ----1315 East West Highway ----- SSMC3, Room 10703 ---- Silver Spring, MD 20910.

#### **POSITIONS AVAILABLE ---- FURTHER DETAILS EITHER ON THE WEB OR IN THE OFFICE**

**Thiele Kaolin Company**, producer of coating and filler clays, is seeking a Research Scientist & Group Leader for its Research and Development Department. An ideal candidate would have a Ph.D. degree in Ceramic/Materials Science & Engineering, Chemical Engineering, Minerals Processing, Chemistry, Clay Mineralogy, or closely related field with at least 3 years postdoctoral and/or industrial experience. The principal responsibilities will be applied research concerning the chemistry, materials science, mineral processing, and mineralogy of kaolin as they relate to developing new products and processes, improving existing products and processes, resource development, and finding new applications for kaolin. A successful candidate would also have an ability and knowledge to link structure-property of a material to its application, performance, and market needs. A working knowledge of statistics and design of experiments, demonstrated interpersonal and supervisory skills and commitment to staff development are required. Experience with a broad range of laboratory instruments (e.g., x-ray diffraction, electron and optical microscopy, thermal analysis, surface area, porosimetry, particle size, FTIR, chemical analysis, chromatography, etc.) is expected. This position is located in Sandersville, Georgia and reports to the Manager of Research and Development. Qualified candidates should forward a detailed resume and cover letter, including salary history, to: Prakash B. Malla, Ph.D. ---- Manager of Research and Development Thiele Kaolin Company ----- P.O. Box 1056 ----- Sandersville, Georgia 31082 ----- or electronically to: [prakash.malla@thielekaolin.com](mailto:prakash.malla@thielekaolin.com) Due to the large volume of resumes expected for this position, we will respond only to candidates who are selected for interviews.

**Michigan Technological University** is seeking to fill a tenure-track position, in any of a number of fields, but preferably someone involved in quantitative and/or engineering aspects of natural hazards. The Department of Geological Engineering and Sciences at Michigan Tech seeks applications for a tenure-track appointment at the Assistant Professor level. A Ph.D. in engineering or science is required. Candidates with demonstrated achievements commensurate with appointment at Associate or Full Professor will also be considered. The ideal candidate would conduct research in quantitative and/or engineering aspects of natural hazards, such as modeling, monitoring, forecasting, mitigation, or communication and response. However, will consider

outstanding applicants who can either complement department's strengths (remote sensing, volcanology, hydrology, petroleum geology, and geophysics) or can help expand department into new directions that show promise of future development. Applicants will be evaluated based on their ability to obtain outside funding, publish scholarly research, and succeed in teaching. Interested candidates can learn more about the department faculty, research, and educational programs at [www.geo.mtu.edu](http://www.geo.mtu.edu). Applicants should send a single PDF document containing a detailed curriculum vitae, a statement of research capabilities and interests, a statement of teaching experience and interests, and the names and complete contact information for at least three professional references. Applications should be e-mailed to [geosearch@mtu.edu](mailto:geosearch@mtu.edu). Applications received by February 15, 2008 will receive the fullest attention.

**Lockheed Martin, KAPL, Inc., Schenectady, NY -----** The complete job announcement (Req ID 60318BR) can be found at the Lockheed Martin career web site ([LockheedMartin.com](http://LockheedMartin.com)). OPEN POSITION - Req ID 60318BR ---- Industry Job Title: Materials Engineer ----- Standard Job Code/Title E1862:Materials Engrg. Required skills BS degree in the physical sciences (e.g., materials, chemistry, geology, solid state physics) or engineering plus hands-on training and/or experience utilizing scanning electron microscopy and X-ray microanalysis for materials characterization, development or failure analysis. MS or PhD degree in physical sciences, with 5 years or more experience in scanning electron microscopy and microanalysis and demonstrated problem solving experience in areas of metallurgy, alloy testing/development, solid inorganic materials, and/or ceramics. Experience with other associated techniques, especially Focused Ion Beam (FIB) and Transmission Electron Microscope (TEM) utilization and application. Previous work with nuclear or radioactive materials, fractographic analysis, corrosion, and/or mechanical metallurgy. The major duties will be use of advanced scanning electron microscopy and associated analytical techniques to determine the microstructure and microchemistry of metals, alloys, and ceramic materials. Ensure instrumentation is operating in proper condition; measure structure and composition of materials using SEM, EDS, WDS, EBSD, etc. Analyze and interpret data and communicate results to customers and sponsoring groups by oral and written reports. Serve as part of research teams to design experiments that will elucidate structure-composition-property-processing relationships. Applicants selected will be subject to a Federal background investigation and must meet eligibility requirements for access to classified matter. US citizenship is required.

**U.S. Geological Survey - Research Geologist ----** USGS invites applications for a research position for an engineering geologist within the Central Region's Geologic Hazards Team located in Memphis, Tennessee. Team members conduct research in geology, geophysics, seismology, engineering seismology, civil engineering, and geomagnetism in order to assess seismic, landslide, and geomagnetic hazards and risk on regional, national, and international scales. The purpose of this position is to conduct basic and applied research in geological and geotechnical engineering in order to understand and predict earthquake ground motions in the Central and Eastern portions of the United States (CEUS). This research effort is carried out in direct support of the principal objectives of the National Earthquake Hazards Reduction Program (NEHRP). The successful applicant will be expected to: (1) collect and analyze data on near-surface geologic materials to determine their engineering properties, especially as they relate to strong ground motion and ground failure; (2) develop methods to integrate sparse geological and geotechnical data across urban areas in the CEUS in order to estimate the distribution of material properties such as shear-wave velocity, density, damping, and other factors that bear on strong ground shaking; (3) research the causes and consequences of earthquake-induced ground failure, with particular emphasis on soils found in abundance in the CEUS and the implications of prehistoric liquefaction deposits on the locations and magnitudes of prehistoric earthquakes; (4) integrate

near-surface geological and geotechnical data into hazard assessments and other products.

Applicants must have published scientific results in peer-reviewed journals, and have strong communication skills. This is a permanent full-time position. U.S. citizenship is required. This position may be filled as a research Research Geologist, GS-1350-12, AS-DEU (vacancy announcement #ER-2008-0013) Application must be received on-line via the USGS Online Automated Recruitment System (OARS) BEFORE midnight Eastern Time December 24, 2007. OARS can be accessed at [www.usgs.gov/ohr/oars](http://www.usgs.gov/ohr/oars)

**Enrico Fermi Institute at the University of Chicago -----** Cosmochemistry/Geochemistry Postdoctoral Position available. The Origins Laboratory of the Department of the Geophysical Sciences and the Enrico Fermi Institute at the University of Chicago

<http://geosci.uchicago.edu/~dauphas/OLwebsite/OLFrameset1.htm> seeks applicants for a postdoctoral scholar in early Earth 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 iron isotope variations for tracing geo-bio cycles, (ii) stable isotope anomalies for characterizing the heterogeneity of the nebula and possibly identifying new presolar phases, and (iii) radiogenic isotopes for constraining early solar system chronology and galactic chemical evolution models. 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 December 31, 2007; 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](mailto:dauphas@uchicago.edu)), Origins Laboratory, Department of the Geophysical Sciences, University of Chicago, 5734 South Ellis Avenue, Chicago, IL 60637.