

# Distinguished Alumni Awards for 2006 .....

*In recognition of your distinguished career as State Geologist of California and your valuable service to the Department and University.*

JAMES F. DAVIS

(B.A. University of Virginia 1953; M.S. Geology 1956 and Ph.D. Geology 1965 UW-Madison) served for over 35 years as the chief geologist and director of the geological surveys of two large states, New York and California. In these positions he provided leadership in application of geoscience knowledge and tools to management of natural resources and to emergency preparedness for natural disasters. In New York he used geologic mapping in a variety of environmental projects and spearheaded the development of a seismic monitoring system to investigate problems ranging from induced seismicity associated with deep-well injection to seismic safety evaluations of proposed nuclear power plants. In California, he re-established the state's regional geologic mapping program, established standards for mine reclamation, and introduced the concept of earthquake scenarios as a tool for emergency planning.

Throughout his career, Jim has been an active member of many professional organizations including GSA and AGU. He served as president of AGI in 1987 and is currently president of the board of the Consortium of Organizations for Strong-Motion Observation Systems (COSMOS), one of the sponsors of the 100th Anniversary Earthquake Conference commemorating the 1906 San Francisco earthquake. Both in his role as State Geologist and through his service to these professional organizations, Jim has devoted significant time and energy to helping the general public understand the need to be prepared for catastrophic earthquakes.

Jim has a long and distinguished record of service to the department. During his term as Chair of the Board of Visitors, he oversaw the successful completion of the Building for the New Millennium Campaign, which supported the West Wing Addition to Weeks Hall. He continues to work with the Geology Museum on strategic planning to enhance support for its educational and research programs.

–Kenneth Ciriacks  
and Jean Bahr, Citationists



James F. Davis

*In recognition of your distinguished contributions in igneous and mantle geochemistry, particularly your extensive work in Hawaiian magmatism.*

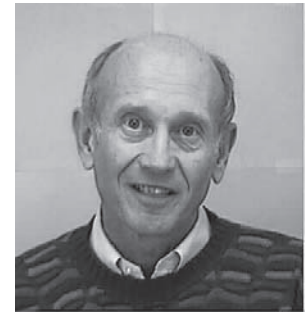
FREDERICK A. FREY

(B.S. Chemical Engineering 1960; Ph.D. Chemistry 1967).

We recognize Fred based on his extensive research on the origin of mantle-derived magmas, which has profoundly affected our models for mantle evolution, including the processes by which oceanic plates and hot spots are created. After receiving a B.S. degree in Chemical Engineering from UW-Madison in 1960, Fred obtained his Ph.D. from the Department of Chemistry in 1967, mentored by Larry Haskin. Professor Haskin had many ties to our Department, where his focus was on the geochemical behavior of the Rare Earth Elements. Fred worked with Professors Emmons and Bailey in our Department, and his thesis, entitled “Rare-earth elements in basic and ultrabasic rocks”, was the most “geological” of any from the Department of Chemistry!

Fred’s first paper, published in JGR in 1964, discovered that basalts from the mid-Atlantic ridge were depleted in the light rare earth elements relative to chondrite meteorites. Although the origin of this depletion was not well understood at first, it would later form a critical component to the evidence that mid-ocean ridge basalts reflect melting of a previously depleted mantle that was produced by several billion years of sea-floor spreading—an important part of the then-developing plate tectonic puzzle.

After Madison, Fred moved to MIT as an Assistant Professor, where he has been ever since. Over the years Fred has also worked on the geochemistry of orogenic arcs and hot spots, with a major effort on the origin and evolution of the Hawaiian Islands. He has published nearly 200 papers and is an ISI “Highly Cited Researcher.” His many awards include the Bowen Medal from AGU, and he is a Fellow of AGU, the Geochemical Society, and the European Association for Geochemistry.



Frederick A. Frey

–Clark Johnson, Citationist

*In recognition of your distinguished contributions in seismology and understanding of the Earth's internal processes.*

WALTER D. MOONEY (A.B. Cornell University 1973; Ph.D. Geophysics UW-Madison 1975) grew up just outside New York City and attended Cornell University, where he majored in Physics and received his AB in 1973. He then came to the Department of Geology and Geophysics at UW-Madison to work with the late Professor Robert P. Meyer. His Ph.D. thesis was on seismic refraction studies of Colombia. Even before Bob signed off on his thesis, Walter had taken a job at the US Geological Survey in Menlo Park, California, where he works to this day as a Research Seismologist. Walter and his wife Jodi Gandolfi reside in Menlo Park, where their annual pre-AGU meeting party is legendary.



Walter D. Mooney

Walter is a world leader in geophysical studies of the Earth's crust and upper mantle, and his reputation for excellence extends well beyond the domain of geophysics. In 1995, he was awarded the Geological Society of America's (GSA) George P. Woollard Award, which is given annually to recognize a person who has made outstanding contributions to geology using geophysical methods. He is also a Fellow of GSA, as well as being a Fellow of the American Geophysical Union (AGU), the Geological Society of London, and the Royal Astronomical Society.

Walter is an outstanding communicator and "scientific ambassador" for seismology. He is currently President Elect of the AGU Seismology Section, a reflection of his standing as one of the leaders of the field. He has given lectures in about two dozen countries over the past three decades. In 2002-2003, he was appointed to be one of the first IRIS-SSA Distinguished Lecturers, giving a presentation on "The Discovery of the Earth: The Quest to Understand the Interior of our Planet." He has been deeply involved in international organizations and activities, including breaking through barriers to collaborative research with scientists in the Former Soviet Union, China, and India, and now leading a major research program in tsunami hazard studies in the wake of the 2004 Sumatra disaster.

—Clifford Thurber, Citationist

(Photos courtesy of Drs. Davis, Frey, and Mooney)

After all of the activities connected to the building project, it has been great to have a year that the staff and I can focus on library services. If you haven't seen the remodeled library, do stop by the next time you are in Weeks Hall.

Although the remodeling is complete, we continue to receive material to enhance the library space. The most visible gifts are wonderful photographs that Dr. Louis Maher took. To commemorate Dr. Maher's 41 years of teaching and service, his children donated funds to reproduce several pictures that he had taken from a lightplane. Three spectacular large photographs now hang in the library. Two, one of which is of the Pecatonica River, Lafayette County, Wisconsin, and the other of Sheep Mountain, Big Horn Basin, Wyoming, are displayed on far wall and visible from the library entrance. The third of Badlands National Park, South Dakota, is displayed in one of the new group study rooms and visible from the hall. There are snapshots on the library's website, and also see page 56 of this *Outcrop*

Another important gift, while not as visible, is an invaluable tool for research and teaching. Mrs. Marta G. Weeks, in memory of Lewis G. Weeks, has generously endowed access to *AAPG Datapage*. The *AAPG Datapage* is the largest online database of literature on the geology and exploration for petroleum. Included are publications from all the important North American societies that publish in this field. There are now more than 600,000 pages from the publications of the AAPG, SEPM, CSPG and other societies too numerous to mention here. This database is unique because AAPG is scanning and providing access to all participating societies' publications including journals, books, abstracts, guidebooks and maps. Many of these publications are not in the UW-Madison's libraries. Moreover this is an active database with numerous publications scheduled to be added.

In fall 2006 the University of Wisconsin-Madison became the 8th library to join the massive Google digitization project. The goal is to provide free, online access to hundreds of thousands of public and historical books and documents from the holdings of the UW-Madison Libraries and the Wisconsin Historical Society Library. This reflects the ideals of the Wisconsin Idea (of which Charles Van Hise, was one of the principal proponents)—that the boundaries of the university are the boundaries of the state—in this case the world. For more on the Google project, see: <<http://www.library.wisc.edu/digitization>>.

Marie Dvorzak

C.K. Leith Library of Geology and Geophysics