WALTER D. MOONEY
The Distinguished Alumnus Award

2006

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

Walter D. Mooney

Walter D. Mooney (A.B. Cornelle 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 PhD thesis was on seismic refraction studies of Colombia. Even before Bob Meyer 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 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

DEPARTMENT OF GEOLOGY & GEOPHYSICS
University of Wisconsin-Madison

Distinguished ALUMNI *Awards*

SPRING AWARDS BANQUET

THE OVERTURE CENTER • MADISON

May 5, 2006

JAMES F. DAVIS
The Distinguished Alumnus Award

2006

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

James F. Davis

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 and protection 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 the 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

FREDERICK A. FREY
The Distinguished Alumnus Award

2006

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

Frederick A. Frey

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 BS degree in Chemical Engineering from UW-Madison in 1960, Fred obtained his PhD from the Department of Chemistry in 1967, mentored by Larry Haskin. Proffessor Haskin had many ties to our Department, where his focus was on the geochemical behavior of the Rare Earth Elements. Fred worked with Proffessors Emmons and Bailey in our Department, and his thesis, entitled "Rare-earth elements in basic and ultrabasic rocks", was probably 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.

–Clark Johnson, Citationist