



**Press Release**

**Thursday, November 3, 2011**

## **UH Planetary Scientist, Klaus Keil, will be honored at an international meeting**

Honolulu, HI – Dr. Klaus Keil, who has been an extraordinarily productive researcher and an outstanding administrator for 50 years, will be honored on November 8 at an international meeting on Kauai, Hawaii on the Formation of the First Solids in the Solar System for his unique qualities as a scientist, leader, and mentor.

“Keil, a Planetary Scientist at the Hawaii Institute of Geophysics and Planetology (HIGP) at the University of Hawaii (UH) School of Ocean and Earth Science and Technology (SOEST), pioneered the use of the electron microprobe to determine the chemical composition of minerals in meteorites,” notes SOEST Dean Brian Taylor. He is one of the co-inventors of the energy-dispersive x-ray spectrometer used on electron microprobes and microscopes to analyze small samples. In 1988, Klaus won the Leonard Medal, which is the highest honor of the Meteoritical Society for his outstanding research on meteorites characterized by careful observations and analyses, perceptive interpretations, and remarkable range. In 2006, Klaus won the J. Lawrence Smith Medal, which is awarded by the National Academy of Sciences. These awards are for Klaus' pioneering quantitative studies of minerals in meteorites and important contributions to understanding the nature, origin, and evolution of their parent bodies. Asteroid 5054 Keil and the mineral keilite are named after Keil. Additionally, he served as Interim Director and

Director of HIGP during 1994 - 2003 and Interim Dean of SOEST during 2003 - 2006.

Besides working on virtually all types of meteorites and on Apollo lunar samples, Keil made significant geological analyses of potential sites for the disposal of radioactive waste. He also analyzed the minerals in many thousands of kidney stones to enable doctors to prescribe appropriate dietary changes to patients.



Dr. Klaus Keil, Planetary Scientist, Hawaii Institute of Geophysics and Planetology.  
Image credit: UH/SOEST



Keil was one of the few cosmochemists on the Viking 2 lander mission, which took this image of the Martian surface in 1976.

Image credit: NASA

Keil will be celebrating his 77th birthday soon after the workshop and will retire next summer from UH.

“This interdisciplinary meeting is an important opportunity for astronomers, astrophysicists and cosmochemists to address what can be learned from meteorites about the earliest stages in the conversion of a disk of gas and dust around the early sun into a fully formed disk of planets, asteroids and comets,” says Edward Scott, HIGP Scientist and meeting co-convener. Primitive meteorites are full of extraordinarily diverse particles that formed during the period of five million years that the gas and dust existed 4,500 million years ago, as well as rare grains that formed around stars that predated our Sun. Meteorites help scientists uncover mysteries of how and when significant events took place in the history of our solar system. Some of the scientific questions that will be discussed at the meeting include: “What do meteorites tell us about the origins of our planetary system?” “Was the formation of our solar system like that of newly discovered systems of planets around other stars, or is our system unusual or unique?” “Did our disk of gas and dust resemble those observed by astronomers in stellar nurseries around newly forming stars?” In addition, a new theory will be presented next week to address why a planet did not form between Mars and Jupiter. Scientists hypothesize that this region of the solar system was emptied when proto-Jupiter migrated inwards as far as Mars' current orbit before being yanked back into the outer solar system by newly formed Saturn.

The HIGP, SOEST, the NASA Astrobiology Institute, and the Institute for Astronomy at UH are co-hosting the workshop, which will be the fourth in a series of workshops on Kauai. For more information, visit the workshop website: <http://www.lpi.usra.edu/meetings/solids2011/>

**Research Contact:** Ed Scott, Planetary Scientist, Hawaii Institute of Geophysics and Planetology, (808) 956-3955, [escott@higp.hawaii.edu](mailto:escott@higp.hawaii.edu)

**SOEST Media Contact:** Marcie Grabowski, (808) 956-6556, [mworkman@hawaii.edu](mailto:mworkman@hawaii.edu)

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The School of Ocean and Earth Science and Technology at the University of Hawaii at Manoa was established by the Board of Regents of the University of Hawai'i in 1988 in recognition of the need to realign and further strengthen the excellent education and research resources available within the University. SOEST brings together four academic departments, three research institutes, several federal cooperative programs, and support facilities of the highest quality in the nation to meet challenges in the ocean, earth and planetary sciences and technologies.

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