

Meteoritical Society Meeting to be held

August 27, 1980

New data concerning the origin of the solar system, the possibility that another sizable planet may once have existed in the solar system, and more evidence that an asteroid may have hit the Earth millions of years ago are some of the topics to be discussed at the 43rd annual Meteoritical Society Meeting to be held at the University of California, San Diego September 2-6.

Some 250 members of the society will convene for the first time at the La Jolla campus for five days of discussion about meteorites and what has been learned from them about the Earth, the sun, the solar system and the universe.

Russell "Rusty" Sweikart, astronaut on the Apollo 9 moon flight and current head of the California State Energy Commission, will give the keynote address "Space Resources in Our Future" at 9 a.m. Wednesday in Mandeville Auditorium.

According to Dr. Kurt Marti, UC San Diego professor of chemistry and member of the conference organizing committee, one of the highlights of the meeting will be a "revision of current concepts of the origin of elements and of the solar system itself."

"The current theory is that the solar system was formed out of a giant cloud, but the elements within that cloud may not have been as well mixed as we originally thought," Marti said. "We may be beginning to see a difference between the composition in the interior of the cloud and the outer edge."

Marti himself is leader of a group called the "Abee Consortium" which has been studying an unusual meteorite which fell in Canada in 1952.

"This type of meteorite is very different, chemically speaking, from others which are commonly found," said Marti. "It is what we call an enstatite meteorite. It was formed in a highly reducing environment and contains large amounts of metal and sulfides.

"We have also found large quantities of extinct radioactivity--iodine 129--which existed only during the early formation of the solar system," Marti continued. "Therefore, the meteorite must have come from a very ancient parent body, more than four billion years old."

The Abee Consortium has theorized that the parent body which spawned the meteorite was a small planet, large enough to retain a layer of rubble and dust, which disintegrated long ago.

Another section of the conference will discuss recent findings which suggest further evidence that the Earth was struck by a large asteroid some 65 million years ago. UC Berkeley scientist Dr. Luis Alvarez has theorized that such an impact was responsible for a change in the Earth's atmosphere which led to the extinction of dinosaurs and other species.

During the conference, Professor Heinrich Wanke of the Max Planck Institute in Mainz, Germany will receive the Leonard Medal, the society's highest award, for his "outstanding contributions to the field." Wanke is one of the early pioneers in research into solar wind gases and of the distribution of trace elements in the solar system.

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