



NEWS

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Frank Richter earns Hess Medal for diverse spectrum of geological contributions

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The University of Chicago's Frank Richter, SM'71, PhD'72, has received the 2009 Harry H. Hess Medal for outstanding research on the constitution and evolution of Earth and its sister planets.

"Frank's mode of research is to identify critical problems, develop a fundamental, first-principles-based understanding, and then to delve deeply into the broader consequences and implications for the earth sciences," said David Rowley, Professor in Geophysical Sciences, in his nominating citation.

In recent studies, Richter, the Sewell Avery Distinguished Service Professor in Geophysical Sciences, has focused his studies on the isotopic characteristics of rocks and minerals from the continents, oceans and meteorites. Measurements of isotopes, which are varieties of a common element that differ only in their atomic mass, can be used to reconstruct a variety of Earth's dynamic geological and oceanographic processes.

"His approach is to identify an earth science-related problem where he can make a significant contribution, work rather single-mindedly until he succeeds to some satisfying degree and then move on once he feels that further efforts would not yield as significant results as what he has already achieved," Rowley said.

Consequently, Richter's specialization defies classification. At various times in his career, he has conducted in-depth, influential research in fluid dynamics, geodynamics, geochemistry, experimental petrology and cosmochemistry. In each of these areas, Richter has combined theoretical and analytical insight with experimental data "to better understand how physics and chemistry affect the evolution of natural systems," according to Rowley.

On a personal level, Rowley said, "Frank is also a careful listener and reader, whose questions and input can often be transformative of his friends and colleagues."

Richter became a research associate at the Massachusetts Institute of Technology after completing his UChicago doctoral degree. He returned to the University on a faculty appointment in 1975.

An elected member of the National Academy of Sciences, Richter has received many honors for his work. These include the Arthur L. Day Medal and the George Wollard Award, both from the Geological Society of America, and the Norman L. Bowen Award of the American Geophysical Union. He also is a fellow of the GSA, the AGU and the American Academy of Arts and Sciences.

Previous recipients of the Hess Medal include Alexandra Navrotsky, PhD'67, the Edward Roesler Chair in Mathematical and Physical Sciences, University of California at Davis, in 2006; Edward Anders, the Horace B. Horton Professor Emeritus in Chemistry, in 1995; the late George W. Wetherill, PhB'48, SB'49, SM'51, PhD'53, of the Carnegie Institution of Washington, in 1991; the late Julian R. Goldsmith, SB'40, PhD'47, the Charles E. Merriam Distinguished Service Professor Emeritus in Geophysical Sciences, in 1987; and Gerald J. Wasserburg, SB'51, SM'52, PhD'54, the John D. MacArthur Professor of Geology and Geophysics Emeritus at the California Institute of Technology, in 1985.



Frank Richter, the Sewell Avery Distinguished Service Professor in Geophysical Sciences, is the 2009 Harry Hess medalist of the American Geophysical Union. Richter is pictured with a bust of T.C. Chamberlin, the first chairman of the University of Chicago's Geology Department. The Geology and Meteorology departments merged in 1961 to become the Department of Geophysical Sciences.

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