Biography of James Arnold

Dr. James R. Arnold is Harold C. Urey Professor of Chemistry (emeritus) at the University of California, San Diego (UCSD). He received his degrees in chemistry from Princeton University. As a graduate student there, he worked on the Manhattan (atomic bomb) Project. He began his research career at the University of Chicago working under Prof. Willard Libby in the development of Carbon-14 dating. He was brought to the University of California, San Diego by Dr. Roger Revelle in 1958 as one of the first faculty members for the then new UCSD campus. He was the founding chairman of the UCSD Department of Chemistry. His research over the last several decades has mainly been in the area of space and planetary science, including participation in NASA's Apollo missions to the moon, and studies of lunar samples returned by those missions. He was the first director of the University of California’s California Space Institute. He is a member of the U.S. National Academy of Sciences, and of the American Academy of Arts and Sciences. He has received a number of medals and awards. Asteroid 2143 is named for him "Jimarnold".

His participation in the Apollo program of manned exploration of the moon led him, along with Gerald O'Neill, Freeman Dyson, and other space scientists, to think about the future of human exploration and settlement of the moon, Mars, and other solar system objects. In 1979 he published a paper calling attention to the possible existence of substantial deposits of ice in the lunar polar regions.

His current interests are mainly in the area of increasing access to the space frontier, in particular by lowering costs while maintaining or improving reliability. The link between this goal and the education of a new generation of space leaders is very close.