



**Scripps Institution of Oceanography
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Ralph Keeling is professor of geochemistry in the Geosciences Research Division of Scripps Institution of Oceanography, University of California, San Diego.

His research focuses on atmospheric chemistry, the carbon cycle, and climate change. He is considered a leading investigator of the global oxygen cycle for his precise measurements and analysis techniques. In the late 1980s, Keeling developed his method for measuring atmospheric oxygen levels utilizing interferometry techniques in the laboratory. Since 1989 he began pioneering measurements of changes in atmospheric oxygen levels from air samples collected at stations around the world. The measurements continue at nine sampling stations, extending from Ellesmere Island in northern Canada, over the equator, to two Antarctic stations.

His measurements show that the atmosphere is losing O_2 at a small but measurable rate due primarily to the burning of fossil fuels. Over the past 18 years, the atmosphere has lost on average 18 out of every million O_2 molecules in the atmosphere. Establishing this rate was a milestone for improving our understanding of the processes controlling the buildup of CO_2 in the atmosphere.

Born January 2, 1957, in La Jolla, CA, Keeling received a B.S. in physics, summa cum laude, from Yale University in 1979, and a PhD in applied physics from Harvard University in 1988.

He has been affiliated with Scripps since 1992. He previously served as a visiting scientist at the National Center for Atmospheric Research (NCAR). He completed postdoctoral fellowships at NCAR and Harvard.

He received the Rosenstiel Award from the University of Miami's Rosenstiel School of Marine and Atmospheric Science in 1992, the Outstanding Publication Award

from NCAR in 1992, and was an H. Burr Steinbach Scholar at Woods Hole Oceanographic Institution in 1998. He also was a Climate Center Visitor at Columbia University's Lamont-Doherty Earth Observatory.

Keeling is a member of the American Geophysical Union.

He is the author of more than 50 of scientific research papers.

Keeling and his family reside in San Diego, CA.

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