

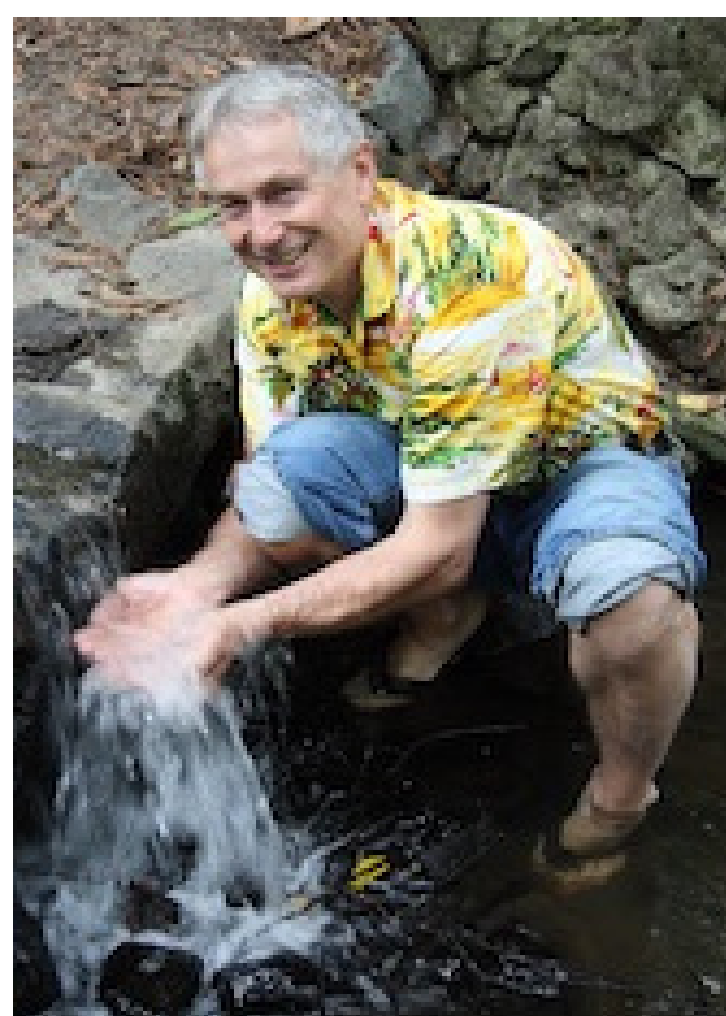


The Nature of Water

MARCH 6TH & 7TH, 2023
MLK JR. BUILDING, WEST PAULEY BALLROOM, 2ND FLOOR
2495 BANCROFT WAY, BERKELEY, CA 94720

PROFESSOR RICHARD J. SAYKALLY

*The Class of 1932 Distinguished Professor Emeritus
Department of Chemistry, University of California*



BIOGRAPHY

Born in Rhinelander, Wisconsin and educated at UW-Eau Claire and UW-Madison, Saykally has been a professor at the University of California, Berkeley since 1979. He and his students have pioneered many important advances in spectroscopy, including velocity modulation spectroscopy of ions, terahertz laser vibration-rotation-tunneling spectroscopy of clusters, infrared photon counting spectroscopy, cavity ringdown spectroscopy, and X-ray spectroscopy of liquid microjets. These have permitted the first detailed study of important textbook molecules, including the hydronium (H_3O^+), hydroxide (OH^-) and ammonium (NH_4^+) ions, as well as water clusters and small carbon clusters.

Recent work includes the spectroscopic determination of a universal water force field via the study of water clusters, the development of femtosecond nonlinear optical molecular imaging methods applied to single nanowire lasers and biological systems, femtosecond UV SHG/SFG studies of aqueous surfaces, and soft X-ray spectroscopy of liquids and liquid surfaces.

Saykally is a member of the National Academy of Sciences and the American Academy of Arts and Sciences, and has received many awards, including the E.O. Lawrence Award in Chemistry from the U.S. Department of Energy, the Hinshelwood Lectureship from Oxford University, the Inaugural International Solvay Chair in Chemistry from the Solvay Institutes of Belgium, the Peter Debye Award in Physical Chemistry from the ACS, the J.C. Bose Lectureship from IACS-Kolkata, and the Faraday Lectureship Prize from the UK Royal Society of Chemistry. He is a UC-Berkeley Distinguished Teacher, and has been active at the national level in science education. Over 150 students and postdocs have trained under his direction, many of whom hold prominent positions in academic, government, and industrial institutions.

TALK TITLE

**Probing Complex
Aqueous
Interfaces**

QUOTE

*"Human beings were
invented by water as a
device for transporting
itself from one place to
another."*

Tom Robbins

*"Since water comprises
ca. 70% of the Earth's
surface, aqueous
interfaces are a
dominant factor in
ocean chemistry,
atmospheric chemistry,
and geochemistry, not to
mention biology! Having
an accurate and
universally predictive
model for water is thus
imperative!"*

Professor Richard J.
Saykally