



SoFlacs



Vol. 33, No. 4

South Florida Section American Chemical Society

April 2023

Virtual Section Meeting, Friday, April 14, 3:30 PM

Join by Zoom Meeting: <https://miami.zoom.us/j/91741104015?pwd=MGQzelBIUm5RcXE5MWxkYkhJdW84dz09>
Meeting ID: 917 4110 4015; Passcode: 817158

“Life Depends on Metal Oxos”

Dr. Harry Gray

Arnold O. Beckman Professor of Chemistry in the Division of Chemistry and Chemical Engineering
California Institute of Technology, and the Founding Director of the Beckman Institute

Abstract: The dianionic oxo ligand occupies a very special place in coordination chemistry, owing to its ability to donate pi electrons to stabilize high oxidation states of metals. The ligand field theory of multiple bonding in metal oxos predicts that there must be an oxo wall between Fe-Ru-Os and Co-Rh-Ir in the periodic table. Iron and manganese oxos, which are on the allowed side of the wall, play key roles in three of the most important chemical reactions on planet Earth: water oxidation to oxygen; oxygen reduction to water; and hydrocarbon oxygenation to alcohols.



Biography: Professor Gray's interdisciplinary research program addresses a wide range of fundamental problems in inorganic chemistry, biochemistry, and biophysics. Electron-transfer (ET) chemistry is a unifying theme for much of this research. Prof. Gray has published over 950 research papers and given named lectures on six continents and in all 50 US States. His many awards and honors include the National Medal of Science (1986); the Linderstrøm-Lang Prize (1992); the Gibbs Medal (1992); the Harvey Prize (2000); the NAS Award in Chemical Sciences (2003); the Benjamin Franklin Medal (2004); the Wolf Prize (2004); the Welch Award (2009); the Richards Medal (2014); the Cotton Medal (2018); the Westheimer Prize (2018); the Feynman Prize (2018); seven national awards from the American Chemical Society, including the Priestley Medal (1991); and 22 honorary doctorates. He is a member of the National Academy of Sciences; the American Academy of Arts and Sciences; the American Philosophical Society; a foreign member of the Royal Danish Academy of Sciences and Letters; the Royal Swedish Academy of Sciences; the Royal Society of Great Britain; and the Accademia Nazionale dei Lincei. He has mentored several hundred students and postdocs during his career, including 119 women, and six have been presidents of seven universities.

SoFLACS AWARDS LUNCHEON

Saturday, May 6

11:30 AM Reception and Poster Session

Noon – 2:00 PM Buffet and Awards

Wolfe Student Center 221-223

FIU Biscayne Bay Campus

3000 N.E. 151st Street, North Miami

Keynote Speaker: Lisa Houston
ACS District IV Director

Cost: \$30.00 ACS members and guests; \$15.00 Students

Send reservation form with check payable to SoFL-ACS
by Saturday, April 29 to:

Dr. Jesse Bernstein, 5565 Celebration Drive
Ave Maria, FL 34142
jbern0309@gmail.com
440-821-4623 (c)

Name(s)

Address

School if a student

Number of reservations: _____ @ \$30.00 = \$ _____

_____ @ \$15.00 = \$ _____

Total enclosed \$ _____