

Presentations



Tuesday, October 22, 2013

7:30-9:30 pm

“The 21st Century Solar Army”

City Room, Edmonton City Hall

Wednesday, October 23, 2013

4:00-5:30 pm

“Powering the Planet with Solar Fuel”

Room L1-140 CCIS, University of Alberta, Edmonton

Dr Gray will visit the University of Alberta, the Kings University College, and an Edmonton high school during his Edmonton visit.



ENGAGING CHEMISTRY

THE EDMONTON DISTINGUISHED
LECTURES IN CHEMISTRY

IS PLEASED TO PRESENT

DR. HARRY GRAY

**Arnold O. Beckman Professor of Chemistry and Founding
Director of the Beckman Institute
at the California Institute of Technology**

October 22-23, 2013

Sponsored by:
Habitat Studio



Faculty of Science at the University of Alberta



75th and 91st CSC Conference Funds

“We and many others are trying to design solar-driven molecular machines that could be used on a global scale to store solar energy by splitting water into its elemental components, hydrogen and oxygen.”

Harry Barkus Gray

Harry Gray is the Arnold O. Beckman Professor of Chemistry and the Founding Director of the Beckman Institute at the California Institute of Technology. After graduate work in inorganic chemistry at Northwestern University and postdoctoral research at the University of Copenhagen, he joined the chemistry faculty at Columbia University, where in the early 1960s he developed ligand field theory to interpret the electronic structures and reactions of transition metal complexes. After moving to Caltech in 1966, he began work in biological inorganic chemistry and inorganic photochemistry that led to the development of molecular systems for the storage of solar energy. Working on the mechanisms of metalloprotein redox reactions, he demonstrated in 1982 that electrons can tunnel rapidly over long molecular distances through folded polypeptide structures. Then, in the 1990s, he and J. R. Winkler developed laser flash-quench methods that opened the way for experimental investigations that have led to a deeper understanding of the mechanisms

of electron flow through proteins that function in respiration and photosynthesis.

Gray has published over 800 research papers and 18 books. He has received the National Medal of Science from President Ronald Reagan (1986); the Pauling Medal (1986); the Linderstrøm-Lang Prize (1992); the Gibbs Medal (1992); the Harvey Prize (2000); the Nichols Medal (2003); the National Academy of Sciences Award in Chemical Sciences (2003); the Benjamin Franklin Medal in Chemistry (2004); the Wolf Prize in Chemistry (2004); the City of Florence Prize in Molecular Sciences (2006); the Welch Award in Chemistry (2009); the Japan International Coordination Chemistry Award (2010); the Othmer Gold Medal (2013); six national awards from the American Chemical Society, including the Priestley Medal (1991); and 17 honorary doctorates, including ones from Rochester, Northwestern, Pennsylvania, Chicago, Columbia, Toulouse, Florence, Copenhagen, and Edinburgh. 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 Academia Nazionale dei Lincei. He has been a director of University Science Books since 1978 and a member of the Board of Directors of the Arnold and Mabel Beckman Foundation since 1994.



Engaging Chemistry: Edmonton Distinguished Lectures in Chemistry

In 1992 and 2008, the Canadian Society of Chemistry held its annual conferences in Edmonton. The planning and conference coordination brought together chemists from academia, government and industrial labs. They were both great technical and financial successes. As part of the conference legacy, money was obtained to fund the 75th CSC conference lecture series, later renamed the "Engaging Chemistry: Edmonton Distinguished Lectures in Chemistry".

The Engaging Chemistry Series brings in internationally recognized chemists. They give technical presentations about their research work and its applications to audiences from academia and industry and also to the general public, increasing awareness of the importance of engaging with chemistry. Lecturers also meet with students, enabling them to interact directly with world-class scientists.

Past Lecturers

1994 Shelia Tobias
1995 Alfred Bader
1996 Alfred Rudin
1997 David Dolphin
1999 George Whitesides
2000 Simon Sutcliffe
(Michael Smith tribute)
2002 Madeleine Jacobs
2004 Jacqueline Barton
2005 John Polanyi
2006 Roald Hoffman
2008 Howard Alper
2010 Daniel Nocera
2011 Shana O. Kelley
2013 Harry B. Gray

These lectures are put on as part of National Chemistry Week.

Edmonton CIC Section website
www.cicedmonton.org