



Sidney W. Benson

Professor Sidney W. Benson was born September 26, 1918 in New York City. He obtained his A. B. degree with honors in Chemistry, Physics and Mathematics in 1938 from Columbia College. He obtained his Ph. D. degree in Physical Chemistry in 1941 from the Harvard University under the tutelage of Professor George B. Kistiakowsky. After a post-doctoral stint at Harvard (1941-42), he served as an Instructor at the College of City University of New York (1942-43). He also served as a Group Leader at Kellogg Corporation for the Manhattan Project (1943). He joined the

University of Southern California in 1943 as an Assistant Professor and rose through the rank: Associate Professor (1948-51), Professor (1951-64). He also ran the Chemical Physics program during that period. Between 1963-76, he moved to Stanford Research Institute as the Chairman of the Kinetics and Thermochemistry Department. He returned to USC in 1976 and co-founded the Hydrocarbon Research Institute (which was later renamed the Loker Hydrocarbon Research Institute) in 1977 with his colleague, Professor George A. Olah as a Scientific Co-Director. He retired from USC in 1991 as a Distinguished Professor and is currently a Distinguished Emeritus Professor.

Professor Benson's research is characterized by exceptional creativity and high impact. His work is of fundamental significance, which involved studies on bond dissociation energies and molecular structure, kinetics of elementary reactions, structure of water solutions, thermochemistry of surfaces and solids. His work is highly cited in many elementary textbooks and his thermochemical calculations based on group additivity approach is widely utilized by a diverse group of researchers world-wide. Professor Benson has been highly prolific with more than 500 peer-reviewed papers. He is the author of such well-known books as *Foundations of Chemical Kinetics* (1960) and *Chemical Calculations* (1952, 1963 and 1971). He has trained a large number of graduate students and post-doctoral associates, many of whom are highly successful in their own scientific careers.

Professor Benson has received many honors and awards that include Guggenheim Fellowship (1950-51), Fulbright Fellowship to France (1950-51), American Chemical Society Award in Petroleum Chemistry (1977), Tolman Award (1978), USC Associates Award for Creativity in Research and Scholarship (1984), Polyani Medal (1986), USC Presidential Medallion (1986), ACS Irving Langmuir Award in Chemical Physics (1986) and Peter Kapitza Gold Medal, Russian Academy of Natural Sciences (1997). He has held many prestigious lectureships and honorary professorships. He was the Editor-in-Chief of the International Journal of Chemical Kinetics (John Wiley and Sons) from 1967-83. He is a member of the US National Academy of Sciences, Fellow of the American Association of Advancement of Science and the Indian National Science Academy.

Morning Session

- 8:00 – 8:30 Continental Breakfast
- 8:30 – 9:00 Opening Remarks, George A. Olah, University of Southern California
Session Chair: John Aklonis, University of Southern California
- 9:00 – 9:40 Robert Bergman, University of California, Berkeley
“Selective Stoichiometric and Catalytic Reactions in Water-Soluble Host-Guest Supramolecular “Nanozymes”
- 9:40 – 10:20 David Golden, SRI International
“Pressure Dependent Reactions for Atmospheric and Combustion Models”
- 10:20 – 10:40 Coffee Break
Session Chair: G.K. Surya Prakash
University of Southern California
- 10:40 – 11:20 Kenneth Houk, University of California, Los Angeles
“Theory of 1,3-Dipolar Cycloadditions”
- 11:20 – 12:00 Jesse L. Beauchamp, California Institute of Technology
“Fundamental Studies of Chemical Reactions at Gas-Liquid Interfaces using Field Induced Droplet Ionization: Applications to Environmental and Biological Chemistry”
- 12:00 – 1:30 Lunch

Afternoon Session

- Session Chair: Hanna Reisler, University of Southern California
- 1:30 – 2:10 Ragaswamy Srinivasan, IBM
“What I learnt from Professor Benson about the Joys of Scientific Discovery”
- 2:10 – 2:50 Curt Wittig, University of Southern California
“Things that Spin”
- 2:50 – 3:30 Coffee Break
Session Chair: Thieo E. Hogen-Esch,
University of Southern California
- 3:30 – 4:10 Barney Ellison, University of Colorado, Boulder
“Sid Benson, Physical Organic Chemistry, and Resonance-Stabilized Radicals”
- 4:10 – 4:50 William Goddard, California Institute of Technology
“Principles of Bonding and Thermochemistry Applied to Homogeneous and Heterogeneous Catalysis”
- 6:00 Banquet: University Club