

David G. Whitten



Photograph taken by Jo Wright Whitten

David G. Whitten was born in Washington, D.C., and raised in the Baltimore, Maryland, area. He attended Johns Hopkins University where he received B.S., M.S., and Ph.D. degrees under the direction of Prof. A. H. Corwin. During his time at Hopkins, Dave met and married Jo Wright, an imaginative and talented artist. After completing his Ph.D. in 1963, the Whittens moved to Pasadena, California, where he first worked as an Army Research Fellow at the Jet Propulsion Laboratory. He then received an NIH postdoctoral fellowship to work in the lab of George Hammond at Caltech where he carried out studies which explored the correlation between reactions induced by ionizing radiation and UV photolysis.

Dave began his academic career at the University of North Carolina in Chapel Hill in 1966. His early research efforts focused on examining energy and electron transfer reactions of singlet and triplet excited states of various metalloporphyrins and azastilbene analogs. In the early 1970s, Dave began a long and fruitful collaboration with his inorganic colleague Thomas Meyer. Their investigations focused on the mechanism by which various organic and inorganic species react with luminescent metal-to-ligand charge transfer excited states of Ru(II) diimine complexes. The work provided the first unequivocal evidence that the charge transfer excited state of Ru(bpy)₃²⁺ engages in photoinduced electron transfer reactions. This early collaborative work on photoinduced electron transfer helped set the stage for the vast amount of research that was subsequently carried out on the application of metal complexes to photoinduced electron transfer and photochemical conversion of solar energy.

In the early 1970s, Whitten's interests expanded to include chemistry in organized assemblies. His endeavors in this area began during work with Hans Kuhn in 1975 at the Max-Planck-Institute für Biophysikalische Chemie in Göttingen, Germany. Dave initially studied the cis–trans photoisomerization of surfactant thioindigo dyes incorporated into multilayer assemblies that were fabricated using the Langmuir–Blodgett technique. Upon returning to Chapel Hill, Whitten's group

began actively exploring the photophysics and photochemistry of organic and transition metal complex chromophores in monolayer films and multilayer assemblies, with particular emphasis on surfactant stilbene derivatives and Ru(II) diimine complexes. These efforts expanded to include studies of isomerization, photocyclization, and photoredox reactions in other self-organizing environments such as micelles, vesicles, and microemulsions.

He was promoted to Full Professor at North Carolina in 1973 and then was named M. A. Smith Professor of Chemistry in 1980. In 1983 Dave left North Carolina to assume the C. E. Kenneth Mees Professorship in Chemistry at the University of Rochester. The Rochester area has a wealth of research in the photochemical sciences and Dave was a part of a group consisting of Rochester faculty and collaborators at Kodak and Xerox that successfully obtained funding from NSF to establish the Center for Photoinduced Charge Transfer. Dave was selected as Director of the Center, and he held the position from 1989 to 1995. During his tenure at Rochester he also served as Chairman of the Chemistry Department from 1988 to 1991 and again from 1995 to 1997.

While at Rochester, Dave's research group continued highly innovative studies of photochemistry in organized assemblies as well as the reactivity of organic radical ions produced by photoinduced electron transfer. He found that stilbene chromophores in monolayers exhibit the spectroscopic signature of H-aggregates. More recent studies of vesicles consisting of phospholipid molecules that contain stilbene, azobenzene, and squaraine chromophores have shown that a variety of aromatic chromophores form discrete chiral tetramers ("pinwheel" aggregates) when incorporated into vesicle bilayers or related assemblies.

In August of 1997 Dave moved from Rochester to the Los Alamos National Laboratory in New Mexico. While it is yet unclear how the new environment will influence his research, it is likely that Dave will successfully harness the strengths of Los Alamos in the areas of biological and materials chemistry

to continue his work in the area of chemistry at interfaces and in organized assemblies.

Dave's scientific, academic, and administrative accomplishments have been recognized by many awards which include an A. P. Sloan Fellowship, a Humboldt Fellowship, the Japan Society for Promotion of Science Fellowship, the ACS Award in Colloid and Surface Chemistry, the Inter-American Photochemical Society Award, and two NSF Awards for Special Creativity. He recently accepted the position as Editor-in-Chief of the ACS publication *Langmuir*, and, with a great deal of help from his wife Jo, he manages the journal from his new office at Los Alamos.

While it is clear that David Whitten is a most accomplished scientist and academician, it is his kindness and generosity that endear him to many. In addition, he possesses a keen wit, and

has a broad range of interests that include history, art, music, pop culture, and the climate. He is also a very accomplished runner, having traversed tens of thousands of miles running in every country and terrain imaginable. He typically runs 50–70 miles per week and competes in 2–4 marathons per year, and when he competes, he usually finishes among the top in his age group. Indeed, several years ago he was ranked third in the nation among marathon runners in his age group. Without a doubt, Dave has been and continues to be a great inspiration to those who have the pleasure of knowing him.

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