Francis E. Blacet

Francis Edward Blacet was born in Greenville, Illinois on February 25, 1899. He attended the then named James Milliken University in Decauter, Illinois, but received his B.A. and M.A. degrees from Pomona College in 1922 and 1925, respectively. He earned his Ph.D. in 1931 under the guidance of Dr. Philip Albert Leighton at Stanford University.

He taught as an Instructor at Stanford University during the academic year 1931 - 1932. He started his long teaching career at the University of California at Los Angeles as an Instructor in 1932.

During World War II, Francis Blacet served as an Official Investigator for the National Defense Research Committee. He became the recipient of the Presidential Certificate of Merit for this work in 1948 from President Harry S. Truman.

Returning to UCLA after the war he continued his teaching career. He served as Chairman of the Department of Chemistry from 1948 - 1956, Dean of the Division of Physical Sciences of the College of Letters and Sciences from 1957 - 66, and as Acting Dean of the College in 1966. He was promoted to Emeritus Professor of Chemistry in 1966. He received the coveted Richard C. Tolman Medal of the Southern California Section of the American Chemical Society in 1968 in recognition of his broad accomplishments in chemistry.

Over the years, Professor Blacet has taught many thousands of students the essentials of general chemistry and photochemistry. It is characteristic of his warmth and concern that he knows the address of every one of his former research students. Happily, Professor Blacet's influence on the field of chemistry is being multiplied by the success and work of his many students.

When Professor Blacet first went to the University of California at Los Angeles there was no graduate school. When he retired after eighteen years in administrative roles both within and without the department, the graduate school had an enrollment of approximately 10,000 and was ranked nationally. The Department of Chemistry certainly was strengthened by his efforts, judgement, and administrative skill. Professor Blacet is an excellent administrator for he shows great insight and judgement about people, has an outstanding sense of humor, is calm in times of crisis, exhibits common sense, disregards red tape, and instills confidence in those with whom he works.

Most of Professor Blacet's research involves quantitative studies of the mechanisms of photolysis of simple organic molecules, chiefly carbonyl compounds. His work on the butyraldehydes illustrates typical techniques and findings, leading to definite evidence on various primary modes of decomposition, and correlations with absorption and fluorescence spectra.

Among the techniques he used was the Blacet–Leighton micro gas analysis apparatus, which was standard for about two decades. Because of his pre-eminence in the photochemistry of organic molecules, Professor Blacet has been an advisor on local and national air pollution problems for two decades. He has published fifty-one papers.

Since 1948 Professor Blacet served as a consultant to the Air Pollution Control District of Los Angeles County. He is a member of the Scientific Committee on Air Pollution, advisory to the Los Angeles County Board of Supervisors. In 1963 - 64 he was a member of an advisory committee at the University Air Pollution Research Center, Riverside.

Professor Blacet played a key role in the development of a new adsorbent for gas masks, one still in use, and in studies of the dispersal of various agents, especially the non-persistent ones.

Professor Blacet met Kate Merrell at Pomono College and they were married in 1924. They have two children, a son, Philip, and a daughter, Ann.

Of his own career, Professor Blacet says:

"The 1930s were especially fun research years for me. After having spent 2½ years with Philip Leighton at Stanford University I initiated my own photochemical program at UCLA. I found undergraduates, as well as Masters candidates, eager to participate and together we accomplished a great deal considering the limited sophistication of our photochemical equipment and of our analytical procedures. Necessity was frequently the mother of invention and it was in that era that the Blacet–Leighton Apparatus for the microanalysis of gases was born. We have lived long enough to see it reach a modest heydey and then sink unnoticed into oblivion; thank God.

"After having gotten off to a promising start in the 1920s, interest in photochemistry lagged in the 1930s. Doubtless this was due to general disillusionment with an early concept that quantum yields must be whole numbers, usually 1 or 2, and therefore, the mechanisms of photochemical processes should be easy to establish. At any rate, one could almost count on his fingers the persons who carried the torch (mercury arc) for photochemistry during that period. They included, among others, Phil Leighton, Albert Noyes, Ned Steacie, Gerhard Rollefson, Farrington Daniels, and Norrish of England. Whenever possible small groups of these dedicated photochemists along with their students would get together for a day or two of informal discussions of their research problems. As I recall one of the most exciting and fruitful meetings of that decade was arranged by Phil Leighton at Stanford in 1938.

"After World War II these meetings continued with increasing interest and momentum and it soon became no longer possible, or perhaps even fair, to limit the attendance. Thus, today you are planning for a gathering of perhaps ten times the number of people we usually had in the early days. With such a large number, to maintain informality without chaos is a real challenge.

"My forty years of teaching were for the most part at the extremes of

the academic chemical spectrum, with freshmen and graduate students. I enjoyed both. A rough estimate indicates that over the years about 15,000 students passed through my undergraduate classes, and one of the pleasures of my later life is to have people come up and say, 'You don't remember me, but I was in your chemistry class way back when . . . . . ',

"UCLA was an undergraduate college of about 4000 students when I joined its Chemistry Faculty in 1932. A Masters degree program was initiated in 1934 and Doctorate work was started shortly before World War II. The war, of course, put a damper on academic research so it can fairly be stated that whatever status UCLA has today as a graduate and research institution was attained after 1945.

"Along with an exciting professional career, I've had a happy family life. In August, Kate and I will have been together 50 years. We have a son, Philip, who has two sons of his own, and a daughter, Ann Bullock, who has three daughters. Philip lives in Palo Alto. He has a Ph.D. in Geology from Stanford and is with the U.S. Geological Survey. Ann lives in Visalia. Her husband, Walter, is a public school administrator."

Thomas W. Martin

Students and Associates of Professor Francis E. Blacet

Kyle D. Bayes
Wayne E. Bell
Sidney Benson
Walter J. Blaedel
Robert K. Brinton
Jack G. Calvert
Robert L. Chass
Robert A. Crane
R. J. Cvetanović
Mostafa A. El-Sayed
Christopher S. Foote
Alvin S. Gordon
Robert Grabenstetter
H. E. Gunning
Aril J. Haagen-Smit
Thomas C. Hall
George S. Hammond
E. Russell Hardwick
Julius D. Heldman
Richard A. Holroyd
Harold S. Johnston
K. O. Kutschke
Philip A. Leighton
Leo D. Levanas
F. P. Lossing
Robert G. Lunche
James E. LuValle
Arnold Miller
Robert W. Moulton
Richard Noyes
W. A. Noyes, Jr.
Richard Pertel
George C. Pimentel
James N. Pitts, Jr.
Jack G. Roof
Robert D. Rowe
Robert L. Scott
Nelson Smith
A. N. Strachan
Alvin Taurog
R. P. Taylor
Robert Vanselow
David H. Volman