president of the American Geological Institute from 1964 to 1965; he received its Ian Campbell Medal in 1984 and its Legendary Geoscientist Award in 2000. In 1961, the Geological Society of America gave him its Arthur L. Day Medal; he was president of the society from 1967 to 1968. Konnie was president of the Geochemical Society from 1970 to 1971 and received its V. M. Goldschmidt Award in 1982. Those medals and awards are the highest honors given by the three professional societies. He was also honored with the Mineralogical Society of America's Distinguished Public Service Medal in 1994.

Geochemistry has come a long way, thanks to intellectual leaders such as Konnie. Perhaps no other geochemist so expertly and faithfully served the Earth science profession in such far-ranging ways. Konnie was enormously effective in all of them—as geologist, geochemist, and science and technology adviser to the nation. He was a scientific icon. His insightful scientific contributions and keen wit are greatly missed.

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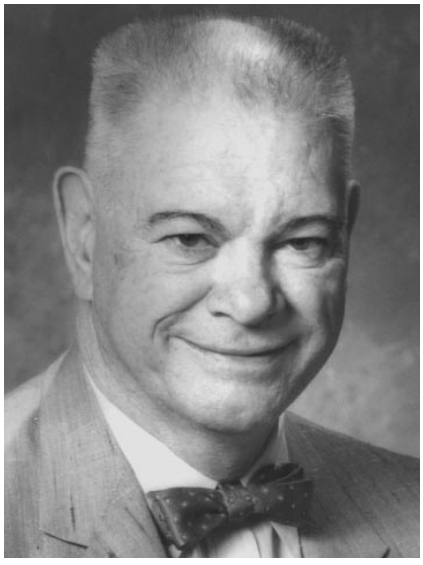
William George McMillan Jr

William George McMillan Jr, an emeritus professor of physical chemistry at UCLA, died of a heart attack on 23 November 2002 in Los Angeles, California. Throughout his career, he combined teaching and research with extensive service as a consultant to the US military.

A native Californian, Bill was born on 19 October 1919 in Montebello and graduated from Montebello High School, where he was greatly influenced by his chemistry teacher, Leon Broock. Bill received his BA in chemistry from UCLA in 1941 and two degrees from Columbia University: an MS in chemistry in 1943 and a PhD in chemical physics in 1945. His dissertation research in statistical mechanics with Joseph E. Mayer concerned the theory of solutions. The results, now known as the McMillan–Mayer theory, are still widely cited. From 1944 to 1946, still at Columbia, Bill was a research chemist on the Manhattan Project and worked on the separation of uranium-235.

On receiving a Guggenheim fellowship in 1946, Bill, with Edward Teller, carried out research in nuclear physics at the University of Chicago. He became an assistant professor of chemistry at UCLA the following year, and by 1959 had risen to the rank of full professor. As chair from 1959 to 1965, Bill led the department of chemistry through a period of rapid growth and development of its research and teaching programs and established a strong infrastructure. His leadership was instrumental in bringing the department to national attention.



William George McMillan Jr

Bill felt a strong commitment to government service. Unlike many in academe (whom he frequently criticized as parochial), he thought the country was continually in mortal danger from the Soviet Union. He worked part-time from 1954 to 1971 for the RAND Corp in Santa Monica, California, as a consultant to the US military. At UCLA, he established defense science seminars (1964–66) to help revitalize the contact between young scientists in the universities and those in government service and in the defense community. While on leave from the university, Bill served from 1966 to 1968 in Vietnam as science adviser to General William Westmoreland. There, Bill developed concepts for artillery and military reconnaissance. After contracting hepatitis in Vietnam, he researched the disease and developed a physicochemical description of it.

Although much of Bill's time was spent in government service that gave rise to many specialized reports—some still classified—his academic publications dealt with a wide variety of topics. They ranged from early work on multicomponent systems to later statistical mechanical and quantum mechanical studies on the Thomas–Fermi model of the atom, transitions in two-dimensional adsorbed layers, dispersion forces between molecules, a comprehensive review of the virial theorem, and applications to ions in solution.

In 1971, Bill founded McMillan Science Associates, which he built up over subsequent decades as a wide-ranging consulting company for high-technology and military projects. He was interested in topics as diverse as traffic flow, global warming, ozone depletion, and atmospheric studies of Venus. A part-time faculty member at UCLA in his later years, he continued his many activities after retiring from the university in 1990.

Over several decades, Bill served on numerous advisory boards and committees dealing with national security. Among his many citations and awards are the US Army's Distinguished Civilian Service Award (1968), Knight of the National Order of Viet Nam (1969), and the US Air Force's Exceptional Civilian Service Award (1984).

Bill was an enthusiastic and well-organized teacher in courses ranging from first-year chemistry to graduate courses in quantum chemistry and statistical mechanics. He would astonish students in a computer age with quick back-of-the-envelope calculations. He had a brilliant mind and could talk and write about anything from planetary physics to the thermodynamics of solutions.

Robert L. Scott
Charles M. Knobler
University of California
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Masahiro Wakatani

On 9 January 2003, Japan lost one of its most prominent theoretical plasma physicists when Masahiro Wakatani died unexpectedly from a cerebral hemorrhage at his home in Nara, Japan.

Wakatani was born on 15 May 1945 in Osaka, Japan. He graduated from Kyoto University in 1968 with a BSc in nuclear engineering and received a doctor of engineering degree in electrical engineering from the same university in 1973. His doctoral research, under Ryohei Itatani, was on the magnetohydrodynamic (MHD) equilibrium and stability of a toroidal pinch. In his thesis, he calculated the collision diffusion coefficients for that device, using the now-famous neoclassical transport theory that had just been developed by Roald Sagdeev and Alec Galeev. Their theory indicated