

## Obituary

### In memoriam: Richard Elliott Wainerdi (1931–2021)

Emile Schweikert<sup>1</sup>

© Akadémiai Kiadó, Budapest, Hungary 2021



Dick Wainerdi at the Houston Medical Center on the Richard E. Wainerdi Bridge (2009)

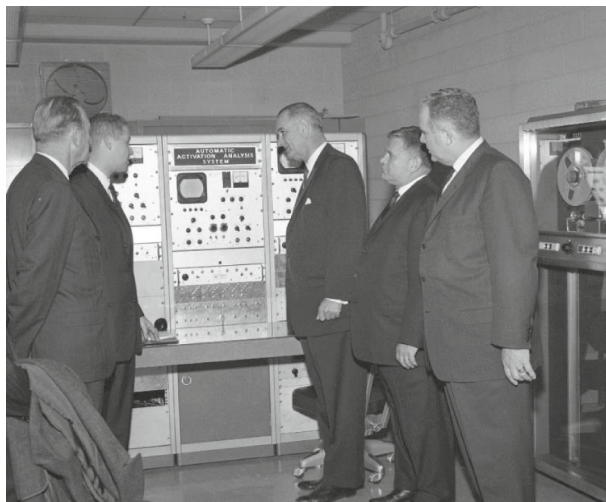
Richard E. “Dick” Wainerdi passed away on March 17, 2021. He had a long and distinguished career that spanned 6 decades, serving successively as Professor and Academic Administrator at Texas A&M University in College Station, President of the Gulf Research & Development Company in Pittsburgh and lastly President and CEO of the Texas Medical Center in Houston. He was born in New York City, graduated from the Bronx High School of Science and completed a B.S. in Petroleum Engineering at the University of Oklahoma. After service in the U.S. Air Force, he entered the graduate engineering program at Pennsylvania State University, receiving M.S. and Ph.D. degrees in 1955 and 1958, respectively. In 1957 Dick Wainerdi joined Texas A&M University to develop a nuclear program. He established there

in 1958 the Activation Analysis Research Laboratory. The thermal and fast neutron activation analysis program has continued for over 60 years under the successive direction of William E. Kuykendall, David Moore, William D. James and currently Bryan E. Tomlin.

Dick Wainerdi pioneered nondestructive and automated activation analysis. Firsts include: the development and application of software for the resolution of complex  $\gamma$ -ray spectra for nondestructive instrumental analysis, a feat in the early sixties with limited computational capabilities. He spearheaded also innovative designs of hardware for automated analysis, including a compact fast neutron activation analysis instrument for extra-terrestrial applications (*Analyt. Chem.*, 39(2), 28A-39A (1967)). In retrospect, these contributions were not only original for their time, but they possessed also visionary and thus fertile qualities as well. The now common-place instrumental analysis, has its roots in his early concept of “computer-coupled activation analysis”. He wrote in 1960, “The primary objective is to expand the capabilities of an existing analytical process by establishing the basic steps for computer data-handling techniques which will allow neutron activation analysis to be used as a rapid, routine, sensitive and economical means of making elemental analyses”, (“Radioisotopes in the Physical Sciences and Industry, IAEA Conf. Proc. 1960, vol. 2, 233). Wainerdi’s work resulted in some landmark papers dealing with large scale screening for cystic fibrosis, the study of metallogenic provinces, seafloor mapping, vulcanological studies. His innovative ideas and instrumentation for extraterrestrial neutron activation led him to edit a monograph on “Analytical Chemistry in Space”, (Elsevier, ISBN 9781483157726). The common tread among these diverse topics was Wainerdi’s interest in trace element patterns as indicators of chemical processes in both mineral and biological systems.

✉ Emile Schweikert  
schweikert@chem.tamu.edu

<sup>1</sup> Department of Chemistry, Texas A&M University, 3144 TAMU, College Station, TX 77843-3144, USA



Dick Wainerdi hosting United States of America Vice President Lyndon B. Johnson in his laboratory at Texas A&M University (1962). Pictured left to right: Texas A&M Chancellor Marion T. Harrington, Wainerdi, Vice President Johnson, U.S. Rep. Olin E. "Tiger" Teague, and Texas A&M President J. Earl Rudder.

Still to be noted among Wainerdi's contributions of lasting impact, are the first two conferences on Modern Trends in Activation Analysis, MTAA, in 1961 and 1965 respectively, originated and organized by him and Derek Gibbons at Texas A&M University. Those meetings have had a unique impact on nuclear activation analysis and its development on an international scale. In recognition of his visionary initiative, Dick Wainerdi was appointed Honorary Chairman of the MTAA Conference series. In the same vein of wide-spread resonance, are the visiting scientists from over a dozen countries who worked in Wainerdi's laboratory. Wainerdi's multiple seminal contributions to radioanalytical chemistry were recognized with the award of the 1977 George Hevesy Medal.

In addition to his scientific work, Dick Wainerdi made other lasting contributions to Texas A&M University. As a result of his efforts the University acquired a 1 MW research

reactor and a 88" cyclotron now upgraded to a K500 superconducting cyclotron. These facilities are the backbone of continuing highly successful programs in basic and applied nuclear science.

Dick Wainerdi left Texas A&M University in 1977 to pursue new challenges in the management of large industrial projects as Senior Vice-President with 3D/International in Houston. In 1982 he moved into corporate executive management as President of Gulf Research & Development Company in Pittsburgh. In 1984 Wainerdi moved back to Houston as President and CEO of the Texas Medical Center. His career in academia, scientific research and the oil industry, provided him with a fresh perspective to create new ideas for growth and recognition for the Texas Medical Center. Under his 28 year-long leadership Houston went from being known as the "energy capital of the world" to the home of the world's largest medical complex. In recognition of "leading the Texas Medical Center through one of the most challenging yet wonderful periods of its history" (Barbara Bush), Dick Wainerdi was on his retirement in 2012 appointed President Emeritus.

Dick Wainerdi's life was characterized by a quest for innovation and an exceptional talent to lead teams of coworkers. On the personal side he will be remembered for his integrity, perseverance, love for family and compassion for others. Dick was preceded in death by his beloved wife of 56 years, Angela Elizabeth Wainerdi. He is survived by his sons Thomas J. and James C. and their families with 6 grandchildren and 10 great grandchildren. Dick Wainerdi touched many lives and will continue to benefit many through his lasting contributions. It is a distinct privilege to have known Dick Wainerdi as a mentor and a friend.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.