

Myron Strongin

Obituary by Peter D. Johnson, Brookhaven National Laboratory
Chair, Condensed Matter Physics and Materials Science Department

Myron Strongin, Senior Physicist Emeritus, in the Condensed Matter Physics and Materials Science Department at Brookhaven National Laboratory and a Fellow of the American Physical Society, passed away on October 8, 2013 at 77 years of age. Although Myron retired in 2005, he continued to pursue his research at BNL full-time until his death. He was a source of stimulation, inspiration, and wisdom to his colleagues until the end. Myron mentored many students, including more than ten graduate students who did their thesis work at BNL.

After earning a B.S. in physics from Rensselaer Polytechnic Institute in 1956, Myron earned an M.S. and Ph.D. in physics in 1962 from Yale University, where he was a student of Henry Fairbank, and began his career in the fields of superconductivity and low-temperature physics. Myron's interest in superconductivity continued from his first published paper, with Fairbank's in 1960, on a search for new superconductors, until his last, with Y. Imry and C. Homes in 2012, on granular superconductivity.

After two years as a researcher at the MIT Lincoln Laboratory, Myron joined BNL's Physics Department in 1963 where he remained for the rest of his career, serving as Associate Chair of the Physics Department from 1986 to 1993, and head of the Solid State Physics Group from 1986 to 2004. He served as Associate Editor of the Physical Review from 1986 to 2004, and was a very important member of the editorial board during the exciting period following the discovery of high-temperature superconductivity in 1986. In fact Myron was the acting Editor of Physical Review Letters at the time of the latter discovery. In order to speed up the publication of papers on High T_c superconductivity he side stepped the normal review process and organized a special committee to comment on publications immediately upon submission.

From his earliest days in research on superconductivity, Myron was very active in studying thin-film superconductors and surface superconductivity, and this led, during the 1970's, to the development of his interest in the use of photoemission, x-ray adsorption, and optical methods to study the electronic structure and chemical reactions on surfaces, thin films, and interfaces, including fundamental studies of oxidation of metals and metal-hydrogen interactions, in addition to his continuing fascination with superconductivity at surfaces and interfaces.

In the late 1970's and early 1980's, Myron and his collaborators started to investigate the adsorption of hydrogen in metals. In early experiments, they measured the hydrogen uptake rate through niobium surfaces. The uptake was surprisingly small, but adding a couple of palladium layers allowed a considerable increase in the rate of uptake of hydrogen into niobium. These were the first studies of tailored surfaces for hydrogen uptake, and a theoretical model was developed to explain the mechanism.

Further, in the early 1980's, Myron was one of the first researchers to perform experiments at the ultraviolet ring of the National Synchrotron Light Source (NSLS). Indeed, after the discovery of high-temperature superconductors in 1986, he and other BNL researchers used the NSLS to make the very first photoemission measurements of high-temperature superconductors in the USA. Such measurements revealed information about the superconductors' electronic structure and the photoemission is still one of the more important techniques for understanding these materials.

In the mid 1990's, Myron and BNL colleagues developed a proposal that led to a new initiative at BNL to study the optical properties of high-temperature superconductors, and along with photoemission, transport measurements, neutron scattering, and theory, the program has made BNL one of the major centers for high-temperature superconductivity research.

Myron was the holder or co-holder of six patents and the author or co-author of 259 well-cited published papers in the physics literature, the most cited of which was on the destruction of superconductivity in disordered near monolayer films. He presented numerous invited talks at conferences, and was active in organizing many conferences. One of his colleagues said of Myron that he had a knack for "doing interesting stuff before other people." His infectious enthusiasm, his high standards in scientific research, and his passionate assessments, pro and con, of prominent figures in areas of science with which he was familiar made him a delightful and inspiring conversationalist. Myron will be deeply missed and long remembered by his many friends at BNL, where he spent 46 years as a member of the scientific staff, and in the wider world of condensed matter physics.

Myron is survived by his wife, Arlene, of more than 50 years, and his three children (and their spouses): David Strongin (Joanne) of Port Washington NY; Daniel Strongin (Denise) of Wynnewood PA; and Alisa Plastrik (Andrew) of Center Moriches NY. He is also survived by six grandchildren: Zachary, Rachel, Joshua, Aaron, Matthew, and Abigail.