

BIOGRAPHICAL SKETCH OF HERMAN WINICK (December, 2006)

Deputy Director (Emeritus); Stanford Synchrotron Radiation Laboratory (SSRL) Division
Stanford Linear Accelerator Center (SLAC)
Professor (Research) Emeritus, Applied Physics & SSRL/SLAC, Stanford Univ.

A.B., Columbia College, 1953 Ph.D. Columbia University, 1957
<http://www-ssrl.slac.stanford.edu/faculty/emeritus.html>

Herman Winick has played a strong leadership role in the development of synchrotron radiation sources and research at Stanford and around the world.

After a postdoc at the University of Rochester (1957-59) he continued work in high energy experimental physics and accelerator development at the Cambridge Electron Accelerator at Harvard University (1959-73), serving as head of the Operations Department and Assistant Director. He came to Stanford in 1973 to lead the technical design of the Stanford Synchrotron Radiation Project (SSRP), now SSRL, and served as Deputy Director of the laboratory until his semi-retirement in 1998 (www-ssrl.slac.stanford.edu).

His professional work includes more than 100 scientific articles, co-editing "Synchrotron Radiation Research" (Plenum Press, 1980) and editing "Synchrotron Radiation Sources - a Primer" (World Scientific, 1994). He serves on advisory and review committees for several synchrotron radiation facilities around the world and is a member of the editorial board of Nuclear Instruments & Methods. He is a Fellow of the American Physical Society (APS) and the American Association for the Advancement of Science (AAAS).

His work on wiggler and undulator magnets as advanced radiation sources has been recognized by a DOE award in 1987 for Energy Related Technology, and in 1995 by the US Particle Accelerator School Prize for Achievement in Accelerator Physics and Technology. In 2000 he was awarded the US Department of Energy Distinguished Associate Award. In 1992 he initiated studies, along with Claudio Pellegrini, of the Linac Coherent Light Source (LCLS) Project to construct an x-ray laser using the SLAC linac. This project is now in construction for an operations start in 2009.

He maintains contact with other accelerator laboratories around the world and has had extended stays as a Research Fellow at the University of Tokyo and on a Humboldt Senior Scientist Award in Hamburg at DESY/HASYLAB. He was instrumental in initiating SESAME (www.sesame.org.jo), a UNESCO-sponsored project which is now constructing a synchrotron radiation laboratory in Jordan, with 8 countries in the Middle East participating.

He has a strong interest in human rights and in international scientific collaboration. His human rights activities include chairing the APS Committee on International Freedom of Scientists (CIFS) in 1992. In 2005 he was elected Vice Chair of the Forum on International Physics of the American Physical Society and received the Heinz R. Pagels Human Rights of Scientists Award from the New York Academy of Sciences.

BIOGRAPHICAL SKETCH OF HERMAN WINICK (Continued)

AWARDS

1986: Received the Alexander von Humboldt Senior Scientist Award in recognition of contributions to the development of synchrotron radiation sources and facilities. Financial support was provided for 10 months of research in Germany. The award was given by the Alexander von Humboldt Foundation.

1987: Winner of the Significant Implication for Energy Related Technology in Solid State Physics category in the Department of Energy's 1987 Materials Sciences Research Competition. The award recognized contributions to the development of wiggler and undulator magnets as advanced radiation sources.

1987: Elected to Fellowship in the American Physical Society. The certificate of Fellowship reads: "For pioneering the second generation use of synchrotron radiation, particularly for the instrumentation and design of wigglers and undulators for condensed matter and biological research."

1995: Elected to Fellowship in the AAAS. The award letter reads: "You are being recognized for developing advanced sources of electromagnetic radiation and for assisting other laboratories in similar developments."

1995: US Particle Accelerator School Prize for Achievement in Accelerator Physics and Technology. The award, shared with Dr. James Spencer of SLAC, was given by the Division of the Physics of Beams of the American Physical Society "For implementing the first of the insertion devices that have had a major influence on synchrotron radiation based sciences".

2000; Received the US Department of Energy Distinguished Associate Award. The citation reads: "For your many accomplishments, contributions, and leadership in the development of modern synchrotron radiation sources and insertion devices to make them even more effective as X-ray sources. This includes your exemplary service to the Department of Energy and the world community in promoting this technology across disciplinary and geographical boundaries over a period of many years."

2005; Received the New York Academy of Sciences Heinz R. Pagels Human Rights of Scientists Award. See <http://www.nyas.org/about/newsDetails.asp?newsID=202>