

MAX BORN AWARD

Alexander E. Kaplan

The Max Born Award is presented in recognition of outstanding contributions to physical optics, theoretical or experimental. This award is endowed by the United Technologies Research Center.



The Optical Society of America presents the Max Born Award to Alexander E. Kaplan for seminal contributions to nonlinear interface and optical bistability effects, hysteretic resonances of a single electron, and physics of subfemtosecond pulses.

Alexander E. Kaplan received his master's degree in physics from the Moscow Institute of Physics and Technology in 1961, and his Ph.D. in physics and math from the U.S.S.R. Academy of Sciences, Moscow, and Gorkii State University in 1967; he was a research staff member there until 1979. That year, he immigrated to the United States, where he started almost immediately as a research staff member at the Massachusetts Institute of Technology, Francis Bitter National Magnet Lab. In August 1982, he joined Purdue University as a professor with the Electrical and Computer Engineering School. In January 1987, he joined the faculty of Johns Hopkins University as a professor with the electrical and computer engineering department.

In 1996, Dr. Kaplan received the Alexander von Humboldt Award for senior U.S. scientists from the Alexander von Humboldt Foundation of Germany, and went on sabbatical leave at the University of Ulm's quantum physics department. He has consulted for Bell Labs, Honeywell and others. He is an OSA Fellow.

Dr. Kaplan's research has been in physical and theoretical optics, especially nonlinear optics and quantum electronics. He made pioneering contributions to the fields of very-high order subharmonics generation, the self-bending effect, nonlinear interfaces and optical bistability, hysteretic and multi-photon resonances of a single trapped electron, light-induced non-reciprocity, soliton physics, X-ray nonlinear optics and the physics of sub-femtosecond to zepto-second pulses. His most recent efforts are in the X-ray transition radiation sources and shock-waves in laser-induced Coulomb explosions.

STATEMENT "For an optical physicist, it is one of the highest honors to receive Max Born Award from OSA becoming thus a member of a very august group of people. When I arrived in the U.S. 26 years ago as a "run-of-the-ship" refugee from Russia, I knew nobody and nobody knew me. But I was lucky that some people knew and used my research on nonlinear optics, and even more lucky to soon become a part of this wonderful, vibrant, appreciative and supportive optical community with a lot of friends and colleagues by now. The very first help and support I got from Paul Kelley, Ben Lax, Peter Smith, Jack Tomlinson, Pierre Meystre, Nico Bloembergen, Howie Schlossberg, my AFOSR program manager, and a few others will always be remembered and appreciated by me. My special thanks for this nomination and Award are to my old friend Boris Zeldovich and the OSA Award Committee."