



Mildred S. Dresselhaus 2000 Winner Karl Taylor Compton Award

MILDRED SPIEWAK DRESSELHAUS was born in Brooklyn, New York during the Depression and, as a child, she worked to help with family expenses. Her love for music and education guided her efforts in gaining admission to Hunter College High School: She earned a perfect score in the mathematics section of the entrance exam. Following graduation from Hunter College with highest honors, Dresselhaus won a Fulbright Fellowship for graduate study at Newnham College at Cambridge. On returning to the U.S. she earned a Master of Arts degree from Radcliffe

College and a doctorate from the University of Chicago with a research emphasis on microwave studies of superconductivity in a magnetic field. She accepted a postdoctoral position at Cornell University in 1958 as a National Science Foundation Fellow.

Dresselhaus joined the MIT Lincoln Laboratory in 1960, and started working in the new research field of magneto-optics, with particular focus on carbon materials and semimetals. She was named visiting Abby Rockefeller Mauze Professor at MIT in 1967 and she joined the faculty as a full professor in 1968. She subsequently served as associate head of the Department of Electrical Science and Engineering, and director of the Center of Materials Science and Engineering. In 1985 Dresselhaus was named Institute Professor, a lifetime honor.

Dresselhaus has been a leader in improving conditions for women scientists. She worked to expand the admission opportunities for women at MIT, initiating a Women's Forum at MIT to address difficulties women face. She was co-principal investigator for the NSF-funded program, "Improving the Climate for Women in Physics Departments" and she headed the first committee of the National Research Council on the Education and Employment of Women in Science and Engineering.

Dresselhaus has held numerous advisory and service positions. She was president of the American Physical Society in 1984, the American Association for the Advancement of Science in 1998, and she has worked frequently with government agencies, most recently as Director of the Office of Science at the U.S. Department of Energy.

Dresselhaus is a member and former treasurer of the National Academy of Sciences, a member of the National Academy of Engineering, and a Fellow of the American Academy of Arts and Sciences, among other honors. She has held visiting professorships in Brazil, Israel, Japan, Venezuela, and the U.S. and has received 17 honorary doctorates. In 1990 she was awarded the National Medal of Science and in 2000 received the Nicholson Medal for Humanitarian Service of the American Physical Society.

The certificate presented to Dresselhaus reads:

The AIP Karl T. Compton Medal for Leadership in Physics is awarded to MILDRED S. DRESSELHAUS in recognition of her outstanding contributions to condensed matter physics, and to the science and engineering community through dedicated and effective service in numerous leadership positions. Dr. Dresselhaus has distinguished herself by her energy, enthusiasm, and skill in each role that she has undertaken. She has been a strong advocate for improving both the funding environment and the intellectual climate for science, and has been active in human rights issues. She is especially known for her tireless and ongoing efforts to improve the climate for women in physics and engineering.