

The Remarkable Life of Nanoscience Pioneer Mildred Dresselhaus

Mildred Dresselhaus was a pioneering scientist in the field of nanoscience. She made significant contributions to the understanding of carbon nanotubes and other nanomaterials. Her work has had a major impact on the development of new technologies, such as solar cells and transistors. Dresselhaus was also a strong advocate for women in science and engineering. She was a role model for many young scientists and helped to pave the way for women to achieve success in these fields.



Carbon Queen: The Remarkable Life of Nanoscience Pioneer Mildred Dresselhaus by Maia Weinstock

★★★★☆ 4.3 out of 5

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Screen Reader : Supported
Enhanced typesetting : Enabled
Word Wise : Enabled
Print length : 318 pages



Early Life and Education

Mildred Dresselhaus was born in Brooklyn, New York, in 1930. Her parents were Jewish immigrants from Poland. Dresselhaus showed an early interest in science and mathematics. She attended Hunter College High School, a prestigious all-girls school in New York City. After graduating from

high school, Dresselhaus enrolled at Hunter College, where she earned a bachelor's degree in physics in 1951.

After graduating from college, Dresselhaus worked as a research assistant at the University of Chicago. In 1955, she married Gene Dresselhaus, a fellow physicist. The couple moved to Cornell University, where Dresselhaus earned a Ph.D. in physics in 1958.

Career

After earning her Ph.D., Dresselhaus joined the faculty at the Massachusetts Institute of Technology (MIT). She was the first woman to be appointed to the MIT faculty in the field of physics. Dresselhaus spent her entire career at MIT, where she became a leading researcher in the field of nanoscience.

Dresselhaus's early work focused on the electrical properties of metals. In the 1970s, she began to study carbon nanotubes, which are tiny cylinders made of carbon atoms. Dresselhaus and her colleagues made several important discoveries about carbon nanotubes, including their electrical conductivity and thermal properties. Their work helped to pave the way for the development of new technologies, such as solar cells and transistors.

Dresselhaus was also a strong advocate for women in science and engineering. She was a mentor to many young scientists and helped to create opportunities for women to succeed in these fields. Dresselhaus was also a founding member of the American Physical Society's Committee on Women in Physics. She served as the committee's chair from 1975 to 1977.

Awards and Honors

Dresselhaus received numerous awards and honors for her work in nanoscience. In 1990, she was elected to the National Academy of Sciences. In 1995, she was awarded the National Medal of Science, the highest scientific honor bestowed by the United States government. In 2000, she was awarded the Enrico Fermi Award, the American Physical Society's highest honor. Dresselhaus was also a fellow of the American Academy of Arts and Sciences and the American Philosophical Society.

Legacy

Mildred Dresselhaus died in 2017 at the age of 86. She left behind a legacy of scientific achievement and advocacy for women in science and engineering. Her work has had a major impact on the development of new technologies, such as solar cells and transistors. She was also a role model for many young scientists and helped to pave the way for women to achieve success in these fields.

Resources

* Mildred Dresselhaus on Wikipedia * Oral History of Mildred Dresselhaus from the American Institute of Physics * Mildred Dresselhaus, Pioneer in Nanoscience, Dies from the National Science Foundation



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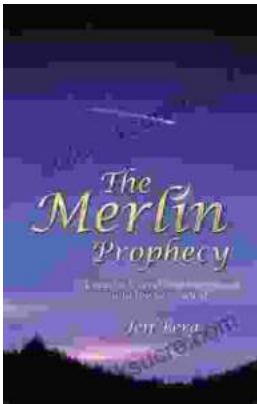
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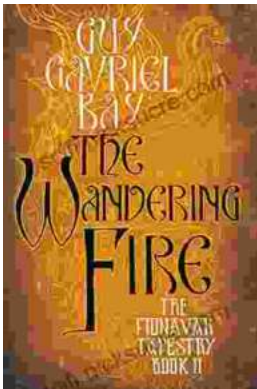
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