

Harry Atwater is currently Howard Hughes Professor and Professor of Applied Physics and Materials Science at the California Institute of Technology. His research interests center around two intertwined research themes photovoltaics and renewable energy and plasmonics and metamaterials. Atwater and his group have been active in photovoltaics research for more than 20 years. Recently they have pioneered new fabrication approaches to III-V semiconductor multijunction cells, and have actively research projects on III-V thin film cells, silicon wire array solar cells, silicon thin film cells and plasmonic light absorber structures.

Atwater received his S.B. (1981), S.M. (1983), and Ph.D. (1987) in Electrical Engineering from the Massachusetts Institute of Technology.

He currently serves as Director of the Caltech Center for Sustainable Energy Research, and is also Director of the Center for Light-Material Interactions, a DOE Energy Frontier Research Center. Professor Atwater was most recently named as Director of the Resnick Institute. Dr. Atwater has consulted extensively for industry and government, and has actively served the materials community in various capacities, including Material Research Society Meeting Chair (1997), Materials Research Society President (2000), AVS Electronic Materials and Processing Division Chair (1999), and Board of Trustees of the Gordon Research Conferences. He serves on the Director's Review Committee, Chemistry and Materials Science Division, Lawrence Livermore National Laboratory. He has served on the Department of Energy, Office of Science, Division of Materials Sciences Visiting Committee; Stanford University Department of Materials Science and Engineering Visiting Committee; National Science Foundation Division of Materials Research Visiting Committee. Atwater is founder and chief technical advisor for Alta Device, a solar energy company, and Aonex Corporation, a compound semiconductor materials company. He is also an editorial board member for Surface Review and Letters.

Atwater has been honored by awards including the Fred Kavli Distinguished Lectureship in Nanoscience, 2010; Joop Los Fellowship from the Dutch Society for Fundamental Research on Matter, 2005; A.T. & T. Foundation Award, 1990; NSF Presidential Young Investigator Award, 1989; IBM Faculty Development Award, 1989-1990; Member, Bohmische Physical Society, 1990; IBM Postdoctoral Fellowship, 1987.

Outside the science and technology world, his passion lies on the soccer field, and he enjoys coaching soccer teams for his sons, ages 14 and 11.