

Biosketch

DR. ESTHER S. TAKEUCHI

Dr. Esther S. Takeuchi is a SUNY Distinguished Professor and holds the William and Jane Knapp Chair in Energy and the Environment in the Departments of Materials Science and Chemical Engineering and Chemistry at Stony Brook University. She also has a joint appointment at Brookhaven National Laboratory as Chief Scientist in the Energy Sciences Directorate.

Prior to her academic appointment, she was employed at Greatbatch, Inc., where her achievements in lithium battery research, particularly on cells for implantable applications, led to a number of key technological developments. Her work was instrumental in the successful development of the lithium/silver vanadium oxide (Li/SVO) battery which is the power source of life-saving implantable cardiac defibrillators (ICDs). The battery technology enabled the widespread adoption of ICDs and remains critical as >300,000 are implanted per year. Dr. Takeuchi is a prolific inventor with > 150 patents.

Dr. Takeuchi has been widely recognized by the most prominent organizations in the United States. She is a member of National Academy of Engineering. In 2009, Dr. Takeuchi was awarded the National Medal of Technology and Innovation by President Obama. In May, 2011 she was inducted into the National Inventors Hall of Fame. She was elected as a Charter Member of the National Academy of Innovation in 2013. She received the E. V Murphree Award and Astellas Award from the American Chemical Society and the Electrochemical Society Battery Division Technology award. She is a Fellow of the Electrochemical Society (ECS) and the American Institute of Medical and Biological Engineering.

Dr. Takeuchi received a bachelor's degree from the University of Pennsylvania with a double major in chemistry and history and completed a Ph.D. in chemistry at the Ohio State University. She completed post-doctoral research at the University of North Carolina and University at Buffalo.