

Asian American Most Promising Engineer of the Year Award

Dr. Philip T. Chiu



Program Manager *The Boeing Company*

Dr. Philip Chiu is a program manager and principal investigator for next-generation space and terrestrial solar cells who pioneered significant contributions to the solar cell community including setting four world records on cell efficiency and producing a cell tester five times faster than its predecessor.

Dr. Philip Chiu is a principal investigator and program manager in the Advanced Technology Products division of Spectrolab, a wholly owned subsidiary of The Boeing Company in Sylmar, CA. Chiu serves as a principal investigator on multi-million dollar programs to develop next-generation space and terrestrial solar cells and serves as program manager for a team developing next-generation cell testers.

Under Dr. Chiu's technical leadership, these projects have achieved two world records for space and terrestrial solar cells and implementation of a production-level tester more than five times faster than its predecessor.

Prior to joining Spectrolab, Chiu was a Metal-Organic Chemical Vapor Deposition scientist at Spire Semiconductor in New Hampshire where he was principal growth engineer developing bifacial terrestrial concentrator cells. Within two years, his team had fabricated a record terrestrial concentrator cell at 42.3 percent.

Dr. Chiu earned a bachelor's degree in Chemistry from Amherst College and a Ph.D. in Materials Science and Engineering from Northwestern University. His doctoral research focused on the epitaxial growth of III-V films by metal organic vapor phase epitaxy. Chiu also designed and built novel instrumentation capable of measuring extremely small magneto-optic effects. In high school, Chiu's passion and aptitude for engineering was reinforced during a two-year summer internship at IBM's Thomas J. Watson Research Center where he learned various micro-electronic fabrication techniques including photolithography, electroplating, etching and sputtering.

Dr. Chiu is a member of the Institute of Electrical and Electronic Engineers. He has published technical papers in several journals including the Journal of Photovoltaics and Applied Physics Letters, given a dozen presentations on solar cells, and filed for four patents.

Dr. Chiu lives in the foothills of Southern California where he is a devoted husband and father to two young girls. He volunteers at their schools and is an active church member. In his spare time, Dr. Chiu enjoys road biking and playing tennis.

