

Alex Zunger
Biographical Sketch

Professor Alex Zunger's research field is Condensed Matter Theory of real materials, including the development of the basic tools (the so-called "first-principles theory of solids"), nanostructures, and especially solar photovoltaic materials. He was the founding Director of the U.S. Department of Energy (DOE) Basic Energy Sciences (BES) "Center for Inverse Design" and serves currently as its Chief Scientist, leading a group of scientist advancing the concept and implementation of "Materials by Design," theory-led experimental realization of materials with pre-assigned "target properties."

Professor Zunger received the 2013 *Hume-Rothery Award* of the TMS (on "First Principles Alloy Theory"), the inaugural 2011 *Materials Theory Award* of the MRS (on "inverse Design of materials"), the *John Bardeen Award* of the Materials Society (on the theoretical understanding and prediction of spontaneous ordering in alloys); the *Rahman Award* of the American Physical Society (on foundational work on first-principles electronic structure theory of solids) and the 2010 *Tomassoni Physics Prize* and the *Science Medal of Scola Physica Romana*, (for foundational DFT work). Fellow of the American Physical Society, Fellow of the Materials Research Society and Fellow of the Institute of Advanced Studies (Tel Aviv University), member of the IIT scientific board.

He has authored numerous articles, including over 150 articles in Physical Review Letters and Rapid Communications. According to Google Scholar Citation, his papers were cited more than 75,000 times, his h-index exceeds 125 (i.e., more than 125 of his publications were cited each at least 125 times).

see <http://scholar.google.com/citations?hl=en&user=9I1Ner8AAAAJ>. He is the author of the fifth-most cited paper in the 110-year history of physical Review (out of more than 350,000 articles published in that journal—see arxiv.org/abs/physics/0407137).

Zunger has mentored 77 postdoctoral fellows, many of whom occupy leading academic positions worldwide.