

Science & Society Distinguished Public Talks

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Presents

Miniaturization effects of solar cell: Microsystems Enabled Photovoltaics

By

Jose Luis Cruz-Campa

5:30 PM Wednesday, 21 January 2015

The University of New Mexico Conference Center, Auditorium
1634 University Blvd. NE

Meet & Greet: 5 p.m.

Pizza with the speaker will follow the lecture

Jose Luis Cruz-Campa, Ph.D. an optoelectronic devices researcher at Sandia National Laboratories is the recipient of the 2014 Outstanding Young Engineer award from the Albuquerque Chapter of IEEE. He holds a doctoral degree in EE and a masters in Physics from the University of Texas at El Paso and a BS in mechanical engineering from Universidad Autónoma Metropolitana in Mexico. His research has explored scaling-effects in silicon, GaAs, and CdTe to achieve new properties and enhanced functionality in photovoltaics. Jose Luis has been highly awarded and published, and is inventor/co-inventor in 22 filed patents.

Abstract. If solar energy is ever going to become a mainstream power source, the technologies for harnessing sunlight must become cheaper than all other forms of energy, be easy and quick to install, and work more safely, reliably and durably than present-day grid power. This presentation will be an overview a new class of photovoltaics with potentially novel applications and benefits such as dramatic reductions in cost, weight, and material usage. These solar cells take advantage of scaling effects using microsystem tools to improve functionality and performance. Materials such as silicon, gallium arsenide, and CdTe have been researched.

