

Les technologies solaires , à Pasadena, Californie



~Armenian Engineers and Scientists of America

Presents

“Advancing Solar-Energy Technologies for Sustainable Fuel Production”

by

Dr. William Royea

Tuesday March 18, 2014, 7:30 pm

at Parsons Corporation

100 W Walnut St, Pasadena, CA 91124

The sun produces enough solar energy in a single hour to meet all of earth's power

requirements for a full year. While plants can capture and store the sun's energy through photosynthesis, there currently exists no system for creating chemical fuels

from sunlight that is robust, inexpensive, and efficient. Recent innovations in physics,

chemistry, materials science and nanotechnology; however, are now leading to major

breakthroughs in solar fuel generation. The Joint Center for Artificial Photosynthesis (JCAP), is the largest and most ambitious research project ever undertaken to develop an integrated artificial photosynthetic system. Established in 2010 as a U.S. Department of Energy (DOE) Energy Innovation Hub, JCAP aims to find a cost-effective method to produce fuels using only sunlight, water, and carbon-dioxide as inputs. An overview of recent advances in JCAP will be presented.

Dr. William Royea is the Assistant Director for Strategy and Communications in the

Joint Center for Artificial Photosynthesis at the California Institute of Technology (Caltech). Dr. Royea has over a decade of management experience in technology development and commercialization, research and manufacturing operations, and intellectual property licensing. His technical expertise is in the field of semiconductor

photoelectrochemistry and chemical vapor detection. In 2004, Dr. Royea led the formation of Next Dimension Technologies, a Caltech start-up company that develops

chemical vapor detection systems. As president of Next Dimension Technologies, he

managed technology and product development for clinical diagnostic, industrial manufacturing, and military and homeland security applications. Prior to that role, he

was a management consultant with McKinsey & Company, where he was responsible

for redesigning the R&D strategy for a top-ten pharmaceutical company and coordinating the merger integration of a \$4B manufacturing operation. Dr. Royea holds a Ph.D. in Chemistry from Caltech and an A.B. degree in Chemistry from Occidental College.