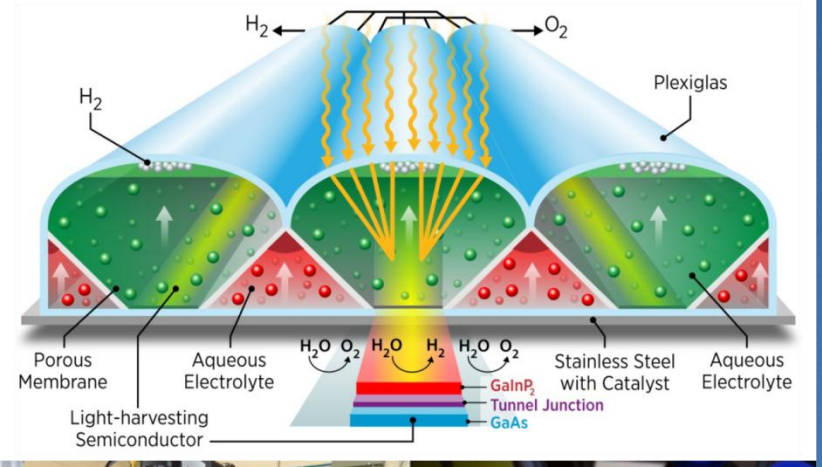

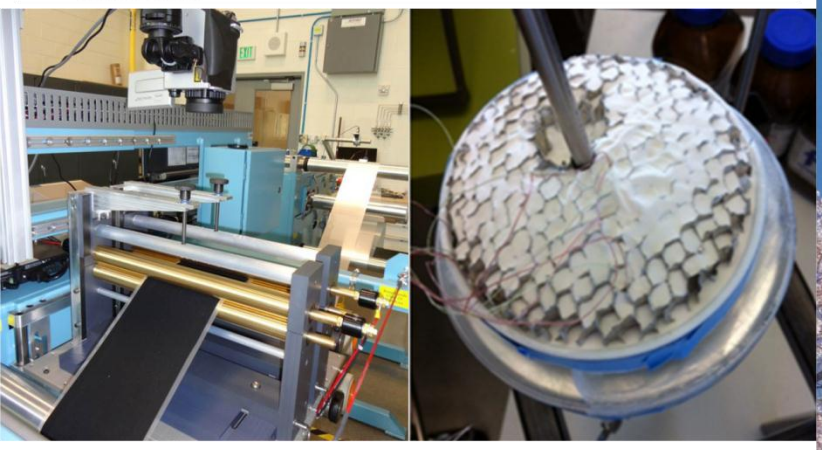

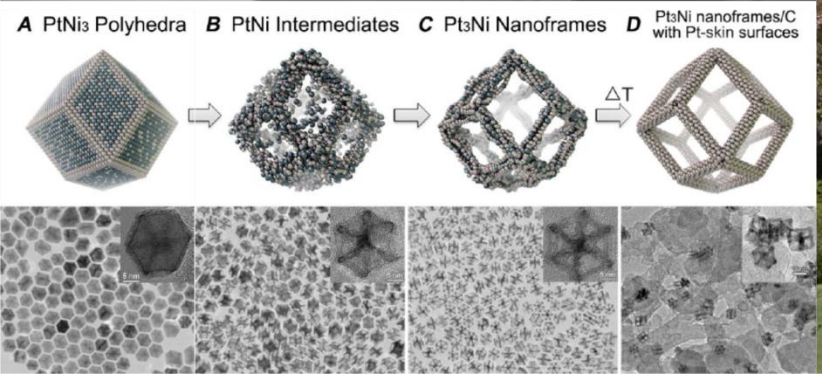

U.S. DEPARTMENT OF

ENERGY

Hydrogen and Fuel Cells Program

2014 Annual Merit Review and Peer Evaluation Report

June 16–20, 2014
Washington, DC

DOE/GO-102014-4503 October 2014

About the Cover

Photo collage (from top to bottom, left to right):

Innovative reactor design for photoelectrochemical hydrogen production. *Illustration by Alfred Hicks, National Renewable Energy Laboratory (NREL).*

In-line QC development for fuel cell electrodes on NREL's research web-line. *Photo courtesy of Michael Ulsh and Guido Bender, NREL.*

"Hex-Cell" is a passive heat exchanger loaded with sorbent powder for hydrogen storage and flow-through hydrogen gas for cooling. *Photo courtesy of Savannah River National Laboratory.*

Launched by the U.S. Department of Energy (DOE), the Hydrogen Fueling Infrastructure Research and Station Technology (H2FIRST) project is a new effort being run by NREL and Sandia National Laboratories to support H_2USA, a public-private partnership co-launched by industry and DOE, and will work to address hydrogen infrastructure component R&D. *Image courtesy of DOE.*

FedEx, Plug Power, and partners are designing, building, and deploying 15 baggage tow tractors to be operated at the airport in Memphis, Tennessee. *Photo courtesy of FedEx.*

A new catalyst synthesized in 2014 by research groups led by Vojislav Stamenkovic (Argonne National Laboratory) and Peidong Yang (Lawrence Berkeley National Laboratory), which consists of a platinum-nickel alloy nanoframe covered by a thin platinum skin, has a performance more than 30 times higher than that of conventional platinum on carbon catalysts. *Photo courtesy of Vojislav Stamenkovic, Argonne National Laboratory, also printed in* Science *(343: 6177), 2014; pp. 1339–1343.*

Photo on right:

U.S. Capitol Building. *Photo courtesy of www.istock photo.com.*

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