

## List of Projects Not Reviewed

Project ID	Project Title	Principal Investigator Name	Organization
BES-001	Using in vitro Maturation and Cell-Free Evolution to Understand [Iron-Iron] Hydrogenase Activation and Active Site Constraints	Jim Swartz	Stanford University
BES-002	Biohydrogen Production by a Photosynthetic Bacterium	Caroline Harwood	University of Washington
BES-003	Hypothermophilic Multiprotein Complexes and Pathways for Energy Conservation and Catalysis: Fundamental Studies of Recombinant Hydrogenases	Michael Adams	University of Georgia
BES-004	Excited State Dynamics in Semiconductor Quantum Dots	Oleg Prezhdo	University of Rochester
BES-005	Bio-Inspired Catalyst/Electrode System for Electrocatalytic Hydrogen Production from Water	Annabella Selloni	Princeton University
BES-006	Photoinitiated Electron Collection in Mixed-Metal Supramolecular Complexes: Development of Photocatalysts for Hydrogen Production	Karen Brewer	Virginia Polytechnic Institute and State University
BES-007	Efficient Hydrogen Production via Novel Molecular Chromophores and Nanostructures	Art Nozik	National Renewable Energy Laboratory
BES-008	Catalyzed Water Oxidation by Solar Irradiation of Band-Gap-Narrowed Semiconductors	Estuko Fujita	Brookhaven National Laboratory
BES-009	Quantum Theory of Semiconductor Photo-Catalysis and Solar Water Splitting	Philip Allen	Stony Brook University
BES-010	Formation and Characterization of Semiconductor Nanorod/Oxide Nanoparticle Hybrid Materials: Toward Vectorial Electron Transport in Hybrid Materials	Neal Armstrong	University of Arizona
BES-011	Discovery and Optimization of Oxide Semiconductors for Solar Water Splitting	Bruce Parkinson	University of Wyoming
BES-012	A Hybrid Biological-Organic Half-Cell for Generating Dihydrogen	John Golbeck	Pennsylvania State University

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BES-013	Catalyst-Bound Silicon Microwire Array Photocathodes for Sunlight-Driven Hydrogen Production	Nathan Lewis	California Institute of Technology
BES-014	Hydrogen Generation Using Integrated Photovoltaic and Photoelectrochemical Cells	Jin Zhang	University of California, Santa Cruz
BES-015	Modular Designed Protein Constructions for Solar Generated Hydrogen from Water	Les Dutton	University of Pennsylvania
BES-016	Protein-Templated Synthesis and Assembly of Visible-Light-Driven Semiconductor Nano-Architectures for Efficient Hydrogen Production	Arunava Gupta	University of Alabama, Tuscaloosa
BES-017	Prospects for Hydrogen Production from Formate by <i>Methanococcus maripaludis</i>	John Leigh	University of Washington
BES-018	Structural, Functional, and Integration Studies of Solar-Driven, Biohybrid Hydrogen-Producing Systems	Maria Ghiradi	National Renewable Energy Laboratory
BES-019	Genes Needed For Hydrogen Production by Sulfate Reducing Bacteria	Lee Krumholz	University of Oklahoma
BES-020	Genetics and Molecular Biology of Hydrogen Metabolism in Sulfate-Reducing Bacteria	Judy Wall	University of Missouri
BES-021	Regulation of Hydrogen and Carbon Dioxide Metabolism: Factors Involved in Partitioning of Photosynthetic Reductant in <i>Chlamydomonas reinhardtii</i>	Maria Ghiradi	National Renewable Energy Laboratory
FC-003	Development of Alternative and Durable High Performance Cathode Supports for PEM Fuel Cells	Yong Wang	Pacific Northwest National Laboratory
FC-034	Membranes and Membrane Electrode Assemblies for Dry, Hot Operating Conditions	Steven Hamrock	3M
FC-035	Lead Research and Development Activity for the U.S. Department of Energy's (DOE) High-Temperature, Low Relative Humidity Membrane Program	James Fenton	University of Central Florida

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FC-045	Effects of Fuel and Air Impurities on PEM Fuel Cell Performance	Fernando Garzon	Los Alamos National Laboratory
FC-046	Effects of Impurities on Fuel Cell Performance and Durability	James Goodwin	Clemson University
FC-047	The Effects of Impurities on Fuel Cell Performance and Durability	Trent Molter	University of Connecticut
FC-066	Development of Thermal and Water Management System for Polymer Electrolyte Membrane Fuel Cell	Zia Mirza	Honeywell
FC-073	Hydrogen Fuel Cell Development in Columbia (South Carolina)	Kenneth Reifsnider	University of South Carolina
H2RA-001	Commercialization of 1-Watt Consumer Electronics Power Pack	Chuck Carlstrom	MTI Micro Fuel Cells Inc.
H2RA-008	H-E-B Grocery Total Power Solution for Fuel Cell Powered Material Handling Equipment	Gus Block	Nuvera Fuel Cells
H2RA-009	Fuel Cell Powered Lift Truck FedEx Freight Fleet Deployment	John King	FedEx Freight
H2RA-010	Fuel Cell Powered Lift Truck Sysco Houston Fleet Deployment	Scott Kliever	Sysco Houston
MN-009	Membrane Electrode Assembly Manufacturing Research and Development Using Drop-on-Demand Technology	Peter Rieke	Pacific Northwest National Laboratory
MN-010	Electrodeposited Manganese-Cobalt Alloy Coatings for Solid Oxide Fuel Cell Interconnects	Heather McCrabb	Faraday Technology Inc.
PD-005	High-Performance, Durable, Palladium Alloy Membrane for Hydrogen Separation and Purification	Ashok Damle	Pall Corp.
PD-006	A Novel Slurry Based Biomass Reforming Process	Sean Emerson	United Technologies Research Center
PD-019	Active Magnetic Regenerative Liquefier	John Barclay	Prometheus Energy

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PD-023	A Combined Materials Science/Mechanics Approach to the Study of Hydrogen Embrittlement of Pipeline Steels	Petros Sofronis	University of Illinois
PD-026	Innovative Hydrogen Liquefaction Cycle	Martin Shimko	Gas Equipment Engineering Corp.
PD-045	Distributed Reforming of Renewable Liquids Using Oxygen Transport Membranes	Balu Balachandran	Argonne National Laboratory
PD-047	Materials Solutions for Hydrogen Delivery in Pipelines	Doug Stalheim	Secat, Inc.
PD-050	Coatings for Centrifugal Compression	George Fenske	Argonne National Laboratory
PD-052	Photoelectrochemical Materials: Theory and Modeling	Yanfa Yan	National Renewable Energy Laboratory
PD-057	Photoelectrochemical-Based Hydrogen Production by Using Self-Cleaning Optical Windows	Malay Mazumder	University of Arkansas, Little Rock
PD-060	Advanced Sealing Technology for Hydrogen Compressors	Hooshang Heshmat	Mohawk Innovative Technology
PD-062	Nanotube Array Photoelectrochemical Hydrogen Production	Rikard Wind	Synkera Technologies, Inc.
PD-065	Unitized Design for Home Refueling Appliance for Hydrogen Generation to 5,000 Pounds Per Square Inch	Timothy Norman	Giner Glectrochemical Systems, LLC
PD-067	Hydrogen by Wire – Home Fueling System	Luke Dalton	Proton Energy Systems
PD-072	Development of Hydrogen Selective Membranes/Modules as Reactors/Separators for Distributed Hydrogen Production	Paul Liu	Media and Process Technology, Inc.
PD-074	Rapid Low Loss Cryogenic Hydrogen Refueling	Salvador Aceves	Lawrence Livermore National Laboratory
PD-076	Photoelectrochemical Hydrogen Generation from Water Using Titanium Disilicide – Titanium Oxide Nanotube Core-Shell Structure	Mano Misra	University of Nevada, Reno

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PD-077	Solar Thermal Hydrogen Production	Ravi Subramanian	University of Nevada, Reno
PD-078	University of South Dakota Catalysis Group for Alternative Energy	James Hoefelmeyer	University of South Dakota
PD-079	Novel Photocatalytic Metal Oxides	Robert Smith	University of Nebraska, Omaha
PD-080	Value-Added Hydrogen Generation with Carbon Dioxide Conversion	Richard Billo	University of Texas, Arlington
PD-082	Process Intensification of Hydrogen Unit Operations Using an Electrochemical Device	Glenn Eisman	H2 Pump LLC
PD-089	H2A Production Model Updates	Darlene Steward	National Renewable Energy Laboratory
SCS-011	Risk-Informed Safety Requirements for Hydrogen Facilities	Daniel Dedrick	Sandia National Laboratories
ST-012	Quantifying and Addressing the DOE Material Reactivity Requirements with Analysis and Testing of Hydrogen Storage Materials and Systems	John Khalil	United Technologies Research Center
ST-025	Polymer-Based Activated Carbon Nanostructures for Hydrogen Storage	Israel Cabasso	State University of New York
ST-035	Reversible Hydrogen Storage Materials – Structure, Chemistry, and Electronic Structure	Ian Robertson	University of Illinois
ST-049	Hydrogen Storage in Metal-Organic Frameworks	Omar Yaghi	University of California, Los Angeles
ST-054	Standardized Testing Program for Solid-State Hydrogen Storage Technologies	Michael Miller	Southwest Research Institute
ST-067	Neutron Characterization in Support of the DOE Hydrogen Storage Program	Terry Udovic	National Institute of Standards and Technology
ST-084	Purdue Hydrogen Systems Laboratory	Jay Gore	Purdue University
ST-095	Low-Cost, Metal Hydride Hydrogen Storage System for Forklift Applications	Craig Jensen	University of Hawaii

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ST-099	Development of Low-Cost, High Strength Commercial Textile Precursor (PAN-MA)	Dave Warren	Oak Ridge National Laboratory
TV-004	Hydrogen to the Highways	Ron Grasman	Daimler
TV-005	Hydrogen Vehicle and Infrastructure Demonstration and Validation	Gary Stottler	General Motors
TV-014	Sustainable Hydrogen Fueling Station, California State University, Los Angeles	David Blehman	Cal State LA University Aux. Services, Inc.