Appendix B

Projects Not Reviewed

	Title	Name	Organization
PD-6	Zeolite Membrane Reactor for Water-Gas-Shift Reaction for Hydrogen Production	Jerry Y.S. Lin	Arizona State U
SA-5	Hydrogen Release Behaviour	Chris Moen	SNL
ST-11	Hydrogen Storage Materials with Binding Intermediate Between Chemisorption and Physisorption	Juergan Eckert	UC-Santa Barbara
ST-12	Discovery of Novel Complex Metal Hydrides for Hydrogen Storage through Molecular Modeling and Combinatorial Methods	Greg Lewis	UOP
ST-13	Complex Hydride Compounds with Enhanced Hydrogen Storage Capacity	Susanne Opalka	United Tech. Res. Center
ST-19	Transition Borohydride Complexes	Craig Jensen	Univ. of Hawaii
ST-33	International Standardized Testing Protocols for Hydrogen Storage Materials	Karl Gross	NREL/HyEnergy
FC-24	Dimensionally Stable High Performance Membrane	Han Liu	Giner Inc.
BES-1	Transport Phenomena and Interfacial Kinetics in Planar Microfluidic Membraneless Fuel Cells	Hector Abruna	Cornell University
BES-2	The Development of Nano-Composite Electrodes for Natural Gas-Assisted Steam Electrolysis for Hydrogen Production	Raymond Gorte	University of Pennsylvania
BES-3	Nanocomposite Proton Conductors	Lutgard De Jonghe	Lawrence Berkeley Nat. Lab.
BES-4	Proton Exchange Membranes for Next Generation Fuel Cells	Joseph DeSimone	U of North Carolina at Chapel Hill
BES-5	Water Nanochannels in Nafion: Quantitative Scattering Analysis and NMR	Klaus Schmidt-Rohr	Iowa State University
BES-6	Charge Transfer, Transport, and Reactivity in Complex Molecular Environments: Theoretical Studies for the Hydrogen Fuel Initiative	Michel Dupuis	Pacific Northwest Nat. Lab.
BES-7	Polymer Functionalized Zeolite Proton Exchange Membrane (PFZ-PEM) for Medium Temperature (>120oC) Fuel Cells from Theory, Simulation, and Experiment	William Goddard, III	California Inst. of Tech.
BES-8	Computer Simulation of Proton Transport in Fuel Cell Membranes	Gregory Voth	University of Utah
BES-9	Porous and Glued Langmuir-Blodgett Membranes	Steven Regen	Lehigh University
BES-10	Nanostructured, Metal-Ion Modified Ceria and Zirconia Oxidation Catalysts	Maria Flytzani-Stephanopoulos	Tufts University
BES-11	Nanostructured Metal Carbide Catalysts for the Hydrogen Economy	Ram Seshadri	U of California, Santa Barbara

APPENDIX B: PROJECTS NOT REVIEWED

BES-12	Development and Mechanistic Characterization of Alloy Fuel Cell Catalysts	Anders Nilsson	Stanford Linear Accelerator Center
BES-13	Atomic-scale Design of a New Class of Alloy Catalysts for Reactions Involving Hydrogen: A Theoretical and Experimental Approach	Manos Mavrikakis	University of Wisconsin-Madison
BES-14	Metal and Metal Oxide-Supported Platinum Monolayer Electrocatalysts for Oxygen Reduction	Radoslav Adzic	Brookhaven National Lab.
BES-15	Strategies for Probing Nanometer-Scale Electrocatalysts: From Single Particles to Catalyst-Membrane Architectures	Carol Korzeniewski	Texas Tech University
BES-16	Reactivity and Stability of Multimetallic Nanocatalysts in Acid Medium	Perla Balbuena	Texas A&M University
BES-17	Studies of Model Electrocatalysts for Fuel-Cell Cathodes	Hoydoo You	Argonne National Laboratory
BES-18	High Performance Nano-Crystalline Oxide Fuel Cell Materials: Defects, Structures, Interfaces, Transport, and Electrochemistry	Scott Barnett	Northwestern University
PDP-3	Montana Palladium Research Initiative/Biological Production and Separations	John Peters	Montana State University
PDP-4	Photobiological Hydrogen Research at FIU	George Philippidis	Florida International University
PDP-7	Distributed Bio-Oil Reforming	Bob Evans	NREL
PDP-12	Low-Cost, High-Pressure Hydrogen Generator	Cecelia Cropley	Giner Electrochemical
PDP-13	Cost Reduction of High-Pressure Hydrogen Generation from Electrolysis	Steve Cohen	Distributed Energy Systems
PDP-14	Development of a Novel Efficient Solid-Oxide Hybrid for Co-generation of Hydrogen and Electricity Using Nearby Resources for Local Applications	Greg Tao	Materials and Systems Research
PDP-15	High Performance Flexible Reversible Solid Oxide Fuel Cell	Jie Guan	GE HPGS
PDP-18	Materials Solutions for Hydrogen Delivery in Pipelines	Muralidharan Govindarajan	ORNL
PDP-20	Solar-thermal Mn2O3/MnO Thermochemical Cycle to Split Water	Todd Francis	U of Colorado
PDP-21	Robust Low-Cost Water Gas Shift Membrane Reactor for High-Purity	Mark Fokema	Aspen Products Group
PDP-22	Production and Storage of Hydrogen Using C1 Chemistry	Gerald Huffman	U of Kentucky Consortium
PDP-24	UNLV High Temperature Heat Exchanger Development	Tony Hechanova	UNLV
PDP-25	Membrane Applications for Nuclear Hydrogen Production Processes	Brian Bischoff	ORNL
PDP-27	Modeling and Diagnostics of HTE Components	Bilge Yildiz	ANL
PDP-29	HyPEP Model Development	Steve Sherman	INL
PDP-34	Critical Research for Cost-effective Photoelectrochemical Production of Hydrogen	Liwei Xu	Midwest Optoelectronics

PDP-35	Combinatorial Development of Water Splitting Catalysts Based on the Oxygen Evolving Complex of Photosystem II	James Allen	Arizona State U
PDP-38	GE Solar Water Splitting: Photocatalyst Materials Discovery and Systems Development	Thomas McNulty	GE Global Res.
PDP-39	Production of Hydrogen for Clean and Renewable Sources of Energy for Fuel Cell Vehicles	Xunming Deng	University of Toledo/Bowling Green
PDP-41	Production, Fuel Cell, and Delivery Research	Yogi Goswami	U of South Florida
PDP-43	Generation and Solid Oxide Fuel Cell Carbon Source Sequestration in Northwest Indiana	Paul Matthews	Acumentrics
PDP-44	Advanced Liquid H2 Production Techniques	Martin Shimko	Gas Equipment Engineering Corporation
ANP-1	Impact of Renewables on Hydrogen Transition Analysis	Stephen Lasher	TIAX
ANP-2	Hydrogen Analysis: H2A Update 2007	Todd Ramsden	NREL
ANP-3	System Dynamics: HyDIVE – Hydrogen Dynamic Infrastructure and Vehicle Evolution Model	Cory Welch	NREL
ANP-5	Analysis Repository	Melissa Lott	ATS
TVP-3	Quantifying Consumer Sensitivity to Hydrogen Refueling Station Coverage	Corey Welch	NREL
TVP-7	Power Parks System Simulation	Andy Lutz	SNL
TVP-12	Hawaii Hydrogen Center for Development and Deployment of Distributed Energy Systems	Richard Rocheleau	Hawaii Natural Energy Inst.
STP-1	Neutron Characterization in support of the Hydrogen Sorption Center of Excellence	Dan Neumann	NIST
STP-5	DOE Carbon-based Hydrogen Storage Center of Excellence Overview Poster	Lin Simpson	NREL
STP-8	Safety Analysis and Applied Research on the Use of Borane-Amines for Hydrogen Storage	Clint Lane	Northern Arizona U.
STP-9	DOE Chemical Hydrogen Storage Center of Excellence Overview Poster	Bill Tumas	LANL
STP-15	Process for the Regeneration of Sodium Borate to Sodium Borohydride	Oscar Moreno	Millenium Cell, Inc.
STP-16	Chemical Hydride Slurry for Hydrogen Production and Storage	Andrew McClaine	Safe Hydrogen, LLC
STP-18	Hydrogen Storage Research	Lee Stefanakos	U of South Florida
STP-19	University of Arkansas at Little Rock Hydrogen Storage Project	Abhijit Bhattacharyya	U of Arkansas
STP-20	Expanding Clean Energy Research and Education Program at the University of S. Carolina	James Ritter	U of South Carolina
STP-22	Purdue Hydrogen Technology Program	Jay Gore	Purdue University
STP-23	Center for Hydrogen Storage Research at Delaware State University	Andrew Goudy	Delaware State University
STP-30	Metal Hydride Center of Excellence Overview Poster	Lennie Klebanoff	Sandia-Livermore

APPENDIX B: PROJECTS NOT REVIEWED

STP-32	Development and Evaluation of Advanced Hydride Systems for Reversible Hydrogen Storage	Bob Bowman	Jet Propulsion Laboratory
STP-33	High Density Hydrogen Storage System Demonstration Using NaAlH4 Complex Compound Hydrides	Dan Mosher	UTRC
STP-34	Effects and Mechanisms of Mechanical Activation on Hydrogen Sorption/Desorption of Nanoscale Lithium Nitrides	Leon Shaw	U of Connecticut
STP-35	A Synergistic Approach to the Development of New Classes of Hydrogen Materials	Jeffrey Long	UC Berkeley/LBNL
STP-36	National Testing Laboratory for Solid-State Hydrogen Storage Technologies	Michael Miller	SwRI
STP-37	Advanced Solid State Hydrogen Storage System Modeling	Bruce Hardy	SRNL
STP-38	Neutron Characterization and Calphad Computations in support of the Metal Hydride Center of Excellence	Terry Udovic	NIST
BESP-1	Silane Activation by Transition Metal Catalysts for Hydrogen Storage	Mahdi Adu-Omar	Purdue University
BESP-2	Nanoscale Building Blocks for Multi-Electron Electrocatalysis	Gilbert Brown	Oak Ridge National Laboratory
BESP-3	eNMR for In-Situ Fuel Cell Catalyst Characterization	Daniel Buttry	University of Wyoming
BESP-4	Nanostructured Catalysts for Hydrogen Generation from Renewable Feedstocks	Abhaya Datye	University of New Mexico
BESP-5	Novel Intermetallic Catalysts to Enhance PEM Membrane Durability	Frank DiSalvo	Cornell University
BESP-6	Nanoporous Metal Membranes with Monolayer-Thick Precious Metal Catalyst Skins	Jonah Erlebacher	Johns Hopkins University
BESP-7	A Surface Stress Paradigm for Studying and Developing Catalyst and Storage Materials Relevant to the Hydrogen Economy	Cody Friesen	Arizona State University
BESP-8	Cathode Catalysis in Hydrogen/Oxygen Fuel Cells	Andrew Gewirth	University of Illinois at Urbana Champaign
BESP-9	Hydrogen Storage Materials with Binding Intermediate Between Physisorption and Chemisorption	Gregory Kubas	Los Alamos National Lab
BESP-10	Novel Reforming Catalysts	Lisa Pfefferle	Yale University
BESP-11	Instability of Noble Metal Catalysts in Proton Exchange Membrane Fuel Cells: Experiments and Theory	Yang Shao-horn	MIT
BESP-12	Nanostructured Catalysts for Fuel Cells	Shane Street	The University of Alabama
BESP-13	Dehydrogenation of Boron Nanostructures	Michael Trenary	University of Illinois at Chicago
BESP-14	Multiscale Tailoring of Highly Active and Stable Nanocomposite Catalysts for the Production of Clean Hydrogen Streams	Gotz Veser	University of Pittsburgh
BESP-15	An Integrated Approach Toward Rational Nanocatalyst Design For Hydrogen Production	Dionisios Vlachos	University of Delaware

BESP-16	The Reactivity and Structural Dynamics of Supported Metal Nanoclusters Using Electron Microscopy, in situ X-Ray Spectroscopy, Electronic Structure Theories, and Molecular Dynamics Simulations	Judith Yang	University of Pittsburgh
BESP-17	Sol-Gel Based Polybenzimidazole Membranes for Hydrogen Pumping Devices	Brian Benicwicz	Rensselaer Polytechnic Institute
BESP-18	New Proton-Conducting Fluoropolymer Electrolytes for PEM Fuel Cells	Stephen Creager	Clemson University
BESP-19	Hydrogen Purification Using Advanced Polymeric Membranes	Benny Freeman	University of Texas at Austin
BESP-20	Carbon Nanotube Materials for Substrate Enhanced Control of Catalytic Activity	Michael Heben	National Renewable Energy Laboratory
BESP-21	Surface-Initiated Ionomer Films Based on Modified Poly(n-alkylnorbornene)s	G. Kane Jennings	Vanderbilt University
BESP-22	A Unified Computational, Theoretical and Experimental Investigation of Proton Transport through the Electrode/Electrolyte Interface of Proton Exchange Membrane Fuel Cell Systems	David Keffer	The University of Tennessee
BESP-23	Fundamentals of Hydroxide Conducting Systems for Fuel Cells and Electrolyzers	Bryan Pivovar	Los Alamos Nat. Lab.
BESP-24	Ab Initio Screening of Ternary Alloys for Hydrogen Purification	David Sholl	Carnegie Mellon University
BESP-25	Electrostatically Self-assembled Amphiplexes	Helmut Strey	Stony Brook University
BESP-26	Theory, Modeling, and Simulation of Ion Transport in Ionomer Membranes	Philip Taylor	Case Western Reserve University
BESP-27	Preparation of Composite Fuel Cell Membranes Containing Electric Field Aligned Inorganic Particles	Matthew Yates	University of Rochester
FCP-2	Montana Palladium Research Initiative/Catalyst Degradation	Stuart Snyder	Montana State University
FCP-3	Fuel Cell Testing at the Argonne Fuel Cell Test Facility	Ira Bloom	ANL
FCP-5	PEM Fuel Cell Freeze Durability and Cold Start Project	Mike Perry	UTC Power
FCP-6	Complex Coolant Fluid for PEM Fuel Cell Systems	Satish Mohapatra	Advanced Fluids Tech.
FCP-7	Combinatorial Screening of Fuel Cell Catalysts	Keith Kepler	Farasis Energy
FCP-10	Next Generation Bipolar Plates for Automotive PEM Fuel Cells	Orest Andrianowycz	GrafTech International, Ltd.
FCP-11	Nitrided Metallic Bipolar Plates	Peter Tortorelli	ORNL
FCP-12	International Stationary Fuel Cell System Demonstration	John Vogel	Plug Power Inc.
FCP-13	Intergovernmental Stationary Fuel Cell System Demonstration	Michael Parsons	Plug Power Inc.
FCP-14	Low Cost, Durable Seal	Jason Parsons	UTC Fuel Cells
FCP-15	Effects of Impurities on Fuel Cell Performance and Durability	Trent Molter	University of CT

APPENDIX B: PROJECTS NOT REVIEWED

FCP-16	Effects of Impurities on Fuel Cell Performance and Durability	James Goodwin	Clemson University
FCP-17	Effects of Impurities on Fuel Cell Performance and Durability	Fernando Garzon	LANL
FCP-18	Adaptive Stack with Subdivided Cells for improved stability, reliability, and durability under automotive load cycle	Bin Du	Plug Power Inc.
FCP-19	Light-weight Low-cost PEM Fuel Cell Stacks	Jesse Wainright	Case Western R Univ
FCP-20	Low-Cost Manufacturable Microchannel Systems for Passive PEM Water Management	Ward TeGrotenhuis	PNNL
FCP-21	Subfreezing Start/Stop Protocol for an Advanced Metallic Open-Flowfield Fuel Cell Stack	James Cross	Nuvera Fuel Cells
FCP-22	Visualization of Fuel Cell Water Trasport and Performance Characterization under Freezing Conditions	Satish Kandlikar	Rochester Institute of Technology
FCP-23	Water Transport in PEM Fuel Cells: Advanced Modeling, Material Selection, Testing, and Design Optimization.	Vernon Cole	CFD Research Corp
FCP-24	Water Transport Within the Stack: Water Transport Exploratory Studies	Rod Borup	LANL
FCP-25	Advanced Cathode Catalysts and Supports for PEM Fuel Cells	Mark Debe	3M Company
FCP-26	Highly Dispersed Alloy Cathode Catalyst for Durability	Tom Jarvi	UTC Fuel Cells
FCP-27	Advanced Cathode Catalysts	Piotr Zelenay	LANL
FCP-28	Non-Platinum Bimetallic Cathode Electrocatalysts	Debbie Myers	ANL
FCP-29	Development of Alternative and Durable High Performance Cathode Supports for PEM Fuel Cells	Yong Wang	PNNL
FCP-30	Novel PEMFC Stack Using Patterned Aligned Carbon Nanotubes as Electrodes in MEA	Di-Jia Liu	ANL
FCP-31	Improved, Low-Cost, Durable Fuel Cell Membranes	Scott Gaboury	Arkema
FCP-32	Membranes and MEA's for Dry, Hot Operating Conditions	Steven Hamrock	3M
FCP-33	New Polyelectrolyte Materials for High Temperature Fuel Cells	John Kerr	LBNL
FCP-34	New Generation High Efficiency 2 kW Fuel Cell Stationary Fuel Cell System	Durai Swamy	Intelligent Energy
FCP-36	DMFC Prototype Demonstration for Comsumer Electronic Applications	Robert Sievers	MTI Micro Fuel Cells
FCP-37	Low-cost Co-production of Hydrogen and Electricity	Jim McElroy	Bloom Energy Corp.
SAP-1	Codes and Standards	Gary Nakarado	Regulatory Logic
SAP-3	IEA Demonstration Analysis	Susan Schoenung	Longitude 122 West
STP-8	Electron-Charged Graphite-Based Hydrogen Storage Material	Chinbay Fan	Gas Technology Institute
STP-9	Nanostructured Activated Carbon for Hydrogen Storage	Israel Cabasso	State University of New York

STP-18	Advanced Concepts for Containment of Hydrogen and Hydrogen Storage Materials	Andrew Weisberg	LLNL
EDP-1	Hydrogen Knowledge Survey	Tykey Truett	ORNL
STP-37	Hydrogen Storage in Novel Organic Clathrates	Peter McGrail	PNNL
TVP-6	Novel Compression and Fueling Apparatus to Meet Hydrogen Vehicle Range Requirements	Todd Carlson	Air Products
TVP-9	Detroit Commuter Hydrogen Project	Carmine Palombo	SEMCOG
EDP-1	Code Official Education	Lynnae Boyd	NREL
STP-21	A Cassette Based System for Hydrogen Storage and Delivery	Wayne Britton	FST Energy
FCP-35	DMFC Power Supply for All-Day True-Wireless Mobile Computing	Brian Wells	Polyfuel, Inc.

APPENDIX B: PROJECTS NOT REVIEWED