

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT3236527

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
UNITED TECHNOLOGIES CORPORATION	04/24/2014

RECEIVING PARTY DATA

Name:	BALLARD POWER SYSTEMS INC.
Street Address:	9000 GLENLYON PARKWAY
City:	BURNABY, BRITISH COLUMBIA
State/Country:	CANADA
Postal Code:	V5J 5J9

PROPERTY NUMBERS Total: 40

Property Type	Number
Patent Number:	6403247
Patent Number:	6451466
Patent Number:	6399231
Patent Number:	6368737
Patent Number:	6391485
Patent Number:	6416892
Patent Number:	6387557
Patent Number:	6569549
Patent Number:	6521367
Patent Number:	6780533
Patent Number:	6393354
Patent Number:	6399234
Patent Number:	6548198
Patent Number:	6632556
Patent Number:	6475652
Patent Number:	6455183
Patent Number:	6682835
Patent Number:	6472095
Patent Number:	6485857
Patent Number:	6572992

PATENT

Property Type	Number
Patent Number:	6514635
Patent Number:	6586123
Patent Number:	6558827
Patent Number:	6596426
Patent Number:	6548200
Patent Number:	6495280
Patent Number:	6537351
Patent Number:	6635370
Patent Number:	6660422
Patent Number:	6696193
Patent Number:	6617068
Patent Number:	6572995
Patent Number:	6645650
Patent Number:	6667125
Patent Number:	6746982
Patent Number:	6794077
Patent Number:	6794073
Patent Number:	6797421
Patent Number:	6773840
Patent Number:	6723461

CORRESPONDENCE DATA

Fax Number: (206)682-6031

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 206-622-4900

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Correspondent Name: HAYLEY J. TALBERT

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ATTORNEY DOCKET NUMBER:	130509.002
NAME OF SUBMITTER:	HAYLEY J. TALBERT
SIGNATURE:	/Hayley J. Talbert/
DATE SIGNED:	02/23/2015

Total Attachments: 32

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Exhibit C

PATENT RIGHTS ASSIGNMENT

This PATENT RIGHTS ASSIGNMENT is entered into as of the 24th day of April, 2014, by and between UNITED TECHNOLOGIES CORPORATION, a corporation organized and existing under the laws of the state of Delaware and having an office and place of business at One Financial Plaza, United Technologies Building, Hartford, CT 06101 (“UTC” or “Assignor”) and BALLARD POWER SYSTEMS INC., a corporation organized and existing under the federal laws of Canada and having an office and place of business at 9000 Glenlyon Parkway, Burnaby, British Columbia V5J 5J9 (“Ballard” or “Assignee”).


WHEREAS, as of the date of this Assignment, UTC and Ballard have entered into a TECHNOLOGY PORTFOLIO PURCHASE AGREEMENT dated April 24, 2014 (“Purchase Agreement”) pursuant to which UTC agreed to sell certain patents and patent applications to Ballard. Assignment of these certain patents and patent applications from UTC to Ballard is a material component of transactions contemplated by the Purchase Agreement. UTC and Ballard agreed that UTC would assign and transfer the certain patents and patent applications, including technical data embodied in these patents and patent applications. Accordingly, Assignor desires to assign and transfer to Assignee the certain patents and patent applications, including technical data embodied in these patents and patent applications (Patent Rights) as set forth on Schedule A, which is attached to this Assignment.

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR hereby assigns and transfers unto the ASSIGNEE, the entire right, title and interest in and to the Patent Rights, including all inventions, applications and any and all letters patents which may be granted for the Patent Rights in the United States of America and its territorial possessions including any extensions or adjustments in term thereof and in any and all foreign countries, and in any and all divisions, reissues, reexaminations, continuations-in-part, and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from the United States application to which the foreign applications are entitled by virtue of international convention, treaty or otherwise, and including the right to sue and collect damages for past and present infringement of the letters patent; the Patent Rights, inventions, applications and all letters patent on the inventions to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNOR had this assignment, transfer and sale not been made. ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue all letters patent on the inventions to ASSIGNEE. ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on the inventions, for litigation regarding the letters patent, or for the purpose of protecting title to the inventions or letters patent therefor.

ASSIGNOR agrees to execute and cause to be executed, at the request of the ASSIGNEE, all assignments, powers of attorney, and other papers as may be reasonably necessary to enable Assignee to obtain or maintain the Patent Rights.

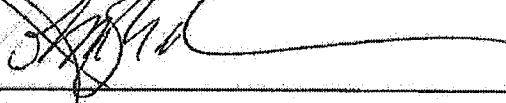
This Assignment is effective as of April, 24, 2014

ASSIGNOR:
United Technologies Corp.



Date: April 24, 2014
Name: Kelly A. Romano
Title: VP, Business Development

ASSIGNEE:
Ballard Power Systems Inc.



Date: April 24, 2014
Name: John Sheridan
Title: President and chief executive officer

Schedule A

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APOLLO NUMBER	FILE NUMBER	TITLE	MATTER TYPE	COUNTRY	STATUS	FORMATTED SERIAL NUMBER	DATE FILED	PUBLICATION NUMBER	FORMATTED PATENT NUMBER	ISSUE DATE
1	PA-000654-US	Solid Oxide Fuel Cell Having Metal Support with a Compliant Porous Nickel Layer	Utility - NSPCT	US	Pending	13/145,382	Jan 22, 2009	20110275006		
2	PA-0000765-US	Controlling an Amount of Liquid Within a Fuel Cell	Utility - NSPCT	US	Issued	12/516,398	Dec 22, 2006	US-2010-0086811-A1	8,124,287	Feb 28, 2012
3	PA-0000865-US	FUEL CELL FLOW FIELD HAVING STRONG, CHEMICALLY STABLE METAL BIPOLAR PLATES	Utility - NSPCT	US	Issued	12/514,507	Dec 8, 2006	2010/0040911	8,309,264	Nov 13, 2012
4	PA-0000933-US	PEM Fuel Cell System with a Porous Hydrophobic Plug for Maintaining System Back Pressure and Methods for Designing the Plug and for Designing Systems for Using the Plug	Utility - ORG	US	Issued	11/326,762	Jan 6, 2006	US-2007-0160883-A1	7,754,364	Jul 13, 2010
5	PA-0000933-US-AA	PEM Fuel Cell System with a Porous Hydrophobic Plug for Maintaining System Back Pressure and Methods for Designing the Plug and for Designing Systems for Using the Plug	Utility - DIV	US	Issued	12/799,387	Apr 23, 2010	US-2010-0239933-A1	7,977,010	Jul 12, 2011
6	PA-0000933-US-AB	PEM Fuel Cell System with a Porous Hydrophobic Plug for Maintaining System Back Pressure and Methods for Designing the Plug and for Designing Systems for Using the Plug	Utility - DIV	US	Issued	12/799,386	Apr 23, 2010	US-2010-0239932-A1	7,972,745	Jul 5, 2011
7	PA-0000938-US	MEMBRANE ELECTRODE ASSEMBLY HAVING PROTECTIVE BARRIER LAYER AND METHOD FOR MITIGATING MEMBRANE DECAY	Utility - NSPCT	US	Pending	12/445,741	Oct 24, 2006	US-2010-0209805-A1		
8	PA-0001003-US	WATER TRANSPORT PLATE FOR A FUEL CELL	Utility - ORG	US	Abandoned	11/617,999	Dec 29, 2006	US 2008/0160366		
9	PA-0001060-JP	AIR BLEED THROUGH FUEL CELL FUEL RECYCLE LOOP	Utility - NSPCT	JP	Pending	2008-548488	Dec 30, 2005			
10	PA-0001060-KR	AIR BLEED THROUGH FUEL CELL FUEL RECYCLE LOOP	Utility - NSPCT	KR	Abandoned	10-2008-7016966	Dec 30, 2005			
11	PA-0001116-US	GAS PURGE CONTROL FOR COOLANT IN A FUEL CELL	Utility - NSPCT	US	Pending	12/517,404	Dec 29, 2006	2010/0068568		
12	PA-0001290-US	FUEL CELL FLOW FIELD HAVING METAL BIPOLAR PLATES	Utility - NSPCT	US	Pending	12/514,623	Dec 8, 2006	2010/0055538		
13	PA-0001421-CN	SEPARATOR PLATE CONFIGURATION FOR A FUEL CELL	Utility - NSPCT	CN	Pending	20088012888 B.X	Apr 23, 2008	102017259		
14	PA-0001421-EP	SEPARATOR PLATE CONFIGURATION FOR A FUEL CELL	Utility - NSPCT	EP	Pending	08 746 592.8	Apr 23, 2008	2277224		
15	PA-0001421-JP	SEPARATOR PLATE CONFIGURATION FOR A FUEL CELL	Utility - NSPCT	JP	Issued	2011-506245	Apr 23, 2008		5385371	Oct 11, 2013
16	PA-0001421-KR	SEPARATOR PLATE CONFIGURATION FOR A FUEL CELL	Utility - NSPCT	KR	Issued	10-2010-7022558	Apr 23, 2008		10-1258325	Apr 19, 2013
17	PA-0001421-US	SEPARATOR PLATE CONFIGURATION FOR A FUEL CELL	Utility - NSPCT	US	Issued	12/922,724	Apr 23, 2008	2011/0008698	8,507,137	Aug 13, 2013
18	PA-0001523-US	Fuel Cell Power Plant Including A Variable Resistive Device	Utility - NSPCT	US	Abandoned	12/443,748	Nov 28, 2006	US-2010-0028729-A1		
19	PA-0001746-US	Rapid Start-Up and Operating System for a Fuel Cell Power plant Utilizing a Reformate Fuel	Utility - NSPCT	US	Issued	12/734,862	Dec 20, 2007	US-2010-0304239-A1	8,455,146	Jun 4, 2013
20	PA-0001794-US	Hydrophobic Layer for a Fuel Cell	Utility - NSPCT	US	Pending	12/517,077	Dec 20, 2006	US-2010-0075199-A1		
21	PA-0001913-CN	VARIABLE FUEL PRESSURE CONTROL FOR A FUEL CELL	Utility - NSPCT	CN	Issued	20068005665 9.2	Dec 19, 2006	101689622	2L200680056659.2	Sep 11, 2013
22	PA-0001913-EP	VARIABLE FUEL PRESSURE CONTROL FOR A FUEL CELL	Utility - NSPCT	EP	Pending	06 845 760.5	Dec 19, 2006	2108199		
23	PA-0001913-JP	VARIABLE FUEL PRESSURE CONTROL FOR A FUEL CELL	Utility - NSPCT	JP	Issued	2009-542733	Dec 19, 2006		5247719	Apr 19, 2013
24	PA-0001913-KR	VARIABLE FUEL PRESSURE CONTROL FOR A FUEL CELL	Utility - NSPCT	KR	Issued	10-2009-7010097	Dec 19, 2006		10-1145450	May 4, 2012
25	PA-0001913-US	VARIABLE FUEL PRESSURE CONTROL FOR A FUEL CELL	Utility - NSPCT	US	Pending	12/447,343	Dec 19, 2006	2010/0068565		
26	PA-0002074-US	METHOD OF FORMING A FUEL CELL SHEET	Utility - NSPCT	US	Pending	13/128,728	Nov 21, 2008	+011-0212379-A1		

APOLLO NUMBER	FILE NUMBER	TITLE	MATTER TYPE	COUNTRY	STATUS	FORMATTED SERIAL NUMBER	DATE FILED	PUBLICATION NUMBER	FORMATTED PATENT NUMBER	ISSUE DATE
27	PA-0002075-US	PEM FUEL CELL SYSTEM WITH A POROUS HYDROPHOBIC GAS VENTING MEMBER WITH GAS FLOW BLOCKAGE PREVENTION	Utility - NSPCT	US	Issued	12/312,294	Dec 16, 2006	US-2010-0047629-A1	8,048,581	Nov 1, 2011
28	PA-0002138-US	FUEL CELL EMPLOYING HYDRATED NON-PERFLUORINATED HYDROCARBON ION EXCHANGE MEMBRANE	Utility - NSPCT	US	Abandoned	12/226,930	May 30, 2006	US-2009-0202870-A1		
29	PA-0002140-US	Multi-point Fuel Cell Voltage Monitor	Utility - NSPCT	US	Pending	12/735,101	Dec 24, 2007	US-2011-0129749-A1		
30	PA-0002142-US	Combustion of Hydrogen in Fuel Cell Cathode Upon Startup	Utility - NSPCT	US	Pending	12/734,764	Dec 28, 2007	US-2010-0310955-A1		
31	PA-0002143-US	AVOIDING COOLANT SLUMP INTO REACTANT FIELDS DURING PEM FUEL CELL SHUTDOWN	Utility - NSPCT	US	Issued	12/310,607	Aug 31, 2006	+010-0239927-A1	8,062,801	Nov 22, 2011
32	PA-0002169-US	HYDROPHILIC LAYER FOR USE IN A FUEL CELL	Utility - NSPCT	US	Issued	12/517,076	Dec 29, 2006	US-2010-0068590-A1	8,129,071	Mar 6, 2012
33	PA-0002220-US	Method and Apparatus for Operating a Fuel Cell in Combination with an ORC System	Utility - NSPCT	US	Pending	12/740,469	Oct 29, 2007	US-2010-0285381-A1		
34	PA-0002276-US	Reduced Axial Pressure in Fuel Cell Stacks	Utility - NSPCT	US	Allowed	12/737,106	Sep 26, 2008	US-2011-0262830-A1		
35	PA-0002389-US	Fuel Cell Stack Conditioned to Operate Safely with Failed Cells	Utility - NSPCT	US	Pending	12/736,955	Jul 9, 2008	US-2011-0117469-A1		
36	PA-0002413-CN	Tailoring Liquid Water Permeability of Diffusion Layers in Fuel Cell Stacks	Utility - NSPCT	CN	Issued	20088012047.6.1	Dec 11, 2008	101897070	ZL200880120476.1	Dec 11, 2013
37	PA-0002413-EP	Tailoring Liquid Water Permeability of Diffusion Layers in Fuel Cell Stacks	Utility - NSPCT	EP	Pending	08 859 760.4	Dec 11, 2008			
38	PA-0002413-JP	Tailoring Liquid Water Permeability of Diffusion Layers in Fuel Cell Stacks	Utility - NSPCT	JP	Issued	2010-537958	Dec 11, 2008		5406207	Nov 8, 2013
39	PA-0002413-KR	Tailoring Liquid Water Permeability of Diffusion Layers in Fuel Cell Stacks	Utility - NSPCT	KR	Pending	10-2010-7013222	Dec 11, 2008			
40	PA-0002413-US-AA	Tailoring Liquid Water Permeability of Diffusion Layers in Fuel Cell Stacks	Utility - NSPCT	US	Pending	12/734,636	Dec 11, 2008	US-2011-0104582-A1		
41	PA-0002456-US	WETTABLE GAS DIFFUSION LAYER FOR A WET SEAL IN A FUEL CELL	Utility - NSPCT	US	Issued	12/515,600	Dec 27, 2006	2010-0092811	8,470,483	Jun 25, 2013
637	PA-0002461-CN	Condensing Heat Exchanger	Utility - ORG	CN	Pending	20118007063.0.0	Nov 4, 2013			
638	PA-0002461-EP	Condensing Heat Exchanger	Utility - ORG	EP	Pending	11864838.5	Dec 2, 2013	2705561		
639	PA-0002461-IN	Condensing Heat Exchanger	Utility - ORG	IN	Pending	9211/DELNP/2013	Oct 25, 2013			
640	PA-0002461-JP	Condensing Heat Exchanger	Utility - ORG	JP	Pending	2014-509271	Nov 1, 2013			
641	PA-0002461-KR	Condensing Heat Exchanger	Utility - ORG	KR	Pending	10-2013-7030735	Nov 20, 2013			
642	PA-0002461-US	Condensing Heat Exchanger	Utility - ORG	US	Pending	13/261,768	Oct 29, 2013	US-2014-0065505-A1		
42	PA-0002461-WO	Condensing Heat Exchanger	Utility - ORG	WO	Pending	PCT/US2011/000789	May 4, 2011	WO 2012/150917		
43	PA-0002508-US	FUEL CELL DEVICE INCLUDING A PARTIALLY POROUS PLATE	Utility - NSPCT	US	Pending	13/002,698	Aug 29, 2008	US-2011-0111325-A1		
44	PA-0002521-US	H2 PAFC Power Plants Running Off Sodium Chlorate Cells	Utility - NSPCT	US	Issued	12/998,327	Nov 17, 2008	+011-0195326-A1	8,673,511	Mar 18, 2014
45	PA-0002538-US	Freeing A Frozen Fuel Cell Component	Utility - NSPCT	US	Issued	12/746,797	Dec 21, 2007	US-2010-0261077-A1	8,486,573	Jul 16, 2013
46	PA-0002541-US	METAL ALLOY BIPOLAR PLATES FOR FUEL CELL	Utility - ORG	US	Pending	11/646,203	Dec 27, 2006	US-2008-0160354-A1		
47	PA-0002573-CN-AA	Electrode Substrate for Electrochemical Cell From Carbon and Cross-Linkable Resin Fibers	Utility - NSPCT	CN	Issued	20078003939.2.0	Mar 29, 2007	101611509	ZL200780039392.0	Sep 25, 2013
48	PA-0002573-EP-AA	Electrode Substrate for Electrochemical Cell From Carbon and Cross-Linkable Resin Fibers	Utility - NSPCT	EP	Pending	07754124.1	Mar 29, 2007			
49	PA-0002573-KR-AA	Electrode Substrate for Electrochemical Cell From Carbon and Cross-Linkable Resin Fibers	Utility - NSPCT	KR	Abandoned	10-2009-7009035	Mar 29, 2007			

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50	PA-0002573-US-AA	Electrode Substrate for Electrochemical Cell From Carbon and Cross-Linkable Resin Fibers	Utility - NSPCT	US	Issued	12/311,483	Mar 29, 2007	US-2010-0035126-A1	8,298,725	Oct 30, 2012
51	PA-0002784-US	Wetability Ink, Process and Carbon Composite Articles Made Therewith	Utility - NSPCT	US	Pending	12/449,751	Mar 21, 2007	US-2010-0055529-A1		
52	PA-0003338-CN	FUEL CELL COMPONENT WITH INTERDIGITATED FLOW FIELDS	Utility - NSPCT	CN	Issued	20088012875 0.X	Apr 18, 2008	102007631	ZL200880128750.X	Oct 30, 2013
53	PA-0003338-EP	FUEL CELL COMPONENT WITH INTERDIGITATED FLOW FIELDS	Utility - NSPCT	EP	Pending	08 746 235.4	Apr 18, 2008	2277219		
54	PA-0003338-JP	FUEL CELL COMPONENT WITH INTERDIGITATED FLOW FIELDS	Utility - NSPCT	JP	Issued	2011-504982	Apr 18, 2008		5247879	Apr 19, 2013
55	PA-0003338-KR	FUEL CELL COMPONENT WITH INTERDIGITATED FLOW FIELDS	Utility - NSPCT	KR	Issued	10-2010-7022112	Apr 18, 2008		10-1258323	Apr 19, 2013
56	PA-0003338-US	FUEL CELL COMPONENT WITH INTERDIGITATED FLOW FIELDS	Utility - NSPCT	US	Issued	12/921,788	Apr 18, 2008	US-2011-0020732-A1	8,679,703	Mar 25, 2014
57	PA-0003348-US	Porous Flow Field Plate For Moisture Distribution Control In A Fuel Cell	Utility - NSPCT	US	Abandoned	12/936,590	Apr 17, 2008	US-2011-0033758-A1		
58	PA-0003381-US	EVAPORATIVELY COOLED HYBRID FUEL CELL POWER PLANT ASSEMBLY	Utility - CIP	US	Issued	12/002,815	Dec 19, 2007	US20080124591A 1	7,887,966	Feb 15, 2011
59	PA-0003381-US-AA	EVAPORATIVELY COOLED HYBRID FUEL CELL POWER PLANT ASSEMBLY	Utility - CON	US	Issued	12/925,840	Oct 22, 2010	US-2011-0045371-A1	8,048,582	Nov 1, 2011
60	PA-0003446-US	Inlet Manifold With Guiding Structure for Fuel Cell	Utility - NSPCT	US	Allowed	13/120,261	Nov 11, 2008	20110171557		
61	PA-0003521-US	SOLID OXIDE FUEL CELL SYSTEM	Utility - NSPCT	US	Pending	13/144,006	Jan 9, 2009	US-2012-0045701-A1		
62	PA-0003601-US	Fuel Cell and Bipolar Plate Having Manifold Sump	Utility - NSPCT	US	Pending	12/933,755	Apr 11, 2008	2011/0020722		
63	PA-0003736-US	FUEL CELL PLATE HAVING MULTI-DIRECTIONAL FLOW FIELD	Utility - NSPCT	US	Pending	12/922,767	Apr 4, 2008	US-2011-0020723-A1		
64	PA-0003826-US	POROUS FLOW FIELD PLATE FOR MOISTURE DISTRIBUTION CONTROL IN A FUEL CELL	Utility - NSPCT	US	Allowed	13/125,085	Oct 22, 2008	2011/0207004		
643	PA-0003827-CN	Operating point for PEM fuel cell with water reservoirs	Utility - NSPCT	CN	Pending		Aug 11, 2011			
644	PA-0003827-EP	Operating point for PEM fuel cell with water reservoirs	Utility - NSPCT	EP	Pending		Aug 11, 2011			
645	PA-0003827-IN	Operating point for PEM fuel cell with water reservoirs	Utility - NSPCT	IN	Pending		Aug 11, 2011			
646	PA-0003827-JP	Operating point for PEM fuel cell with water reservoirs	Utility - NSPCT	JP	Pending		Aug 11, 2011			
647	PA-0003827-KR	Operating point for PEM fuel cell with water reservoirs	Utility - NSPCT	KR	Pending		Aug 11, 2011			
648	PA-0003827-US	Operating point for PEM fuel cell with water reservoirs	Utility - NSPCT	US	Pending		Aug 11, 2011			
65	PA-0003827-WO	Operating point for PEM fuel cell with water reservoirs	Utility - ORG	WO	Pending	PCT/US2011/047386	Aug 11, 2011	WO2013022450		
66	PA-0003998-DE	Mitigating Electrode Erosion in High Temperature PEM Fuel Cell	Utility - NSPCT	DE	Pending	11200900517 9.0	Aug 28, 2009			
67	PA-0003998-IN	Mitigating Electrode Erosion in High Temperature PEM Fuel Cell	Utility - NSPCT	IN	Pending	309/DELNP/2012	Aug 28, 2009			
68	PA-0003998-JP	Mitigating Electrode Erosion in High Temperature PEM Fuel Cell	Utility - NSPCT	JP	Pending	2012-526695	Aug 28, 2009	JP2013503438		
69	PA-0003998-KR	Mitigating Electrode Erosion in High Temperature PEM Fuel Cell	Utility - NSPCT	KR	Pending	10-2012-7003495	Aug 28, 2009	KR2012056818		
70	PA-0003998-US	Mitigating Electrode Erosion in High Temperature PEM Fuel Cell	Utility - NSPCT	US	Pending	13/261,129	Aug 28, 2009	US-2012-0115058-A1		
71	PA-0004044-US	Apparatus and Method for Fuel Cell Start from Freezing Without Melting Ice	Utility - NSPCT	US	Pending	13/138,021	Jan 26, 2009			
72	PA-0004074-US	Heat Treat Configuration For Porous Carbon-Carbon Composites	Utility - NSPCT	US	Issued	12/739,205	Dec 17, 2007	2010/0230031	8,357,253	Jan 22, 2013
73	PA-0004107-EP	SELECTIVELY SEALING FUEL CELL POROUS PLATE	Utility - NSPCT	EP	Pending	09843140.6	Apr 6, 2009	2417660		
74	PA-0004107-US	SELECTIVELY SEALING FUEL CELL POROUS PLATE	Utility - NSPCT	US	Pending	13/258,778	Apr 6, 2009	US-2012-0009500-A1		
75	PA-0004128-US	Variable Air Utilization Increases Fuel Cell Membrane Durability	Utility - NSPCT	US	Pending	13/261,079	Jul 16, 2009	US-2012-0088173-A1		
76	PA-0004169-US	WICKING LAYER FOR MANAGING MOISTURE DISTRIBUTION IN A FUEL CELL	Utility - NSPCT	US	Abandoned	12/920,609	Apr 24, 2008	US-2011-0003217-A1		

APOLLO NUMBER	FILE NUMBER	TITLE	MATTER TYPE	COUNTRY	STATUS	FORMATTED SERIAL NUMBER	DATE FILED	PUBLICATION NUMBER	FORMATTED PATENT NUMBER	ISSUE DATE
77	PA-0004257-US	SOLID PLATE FUEL CELL DEVICE HAVING A LIQUID SOAK UP REGION	Utility - NSPCT	US	Pending	13/003,775	Sep 12, 2008	US-2011-0129747-A1		
78	PA-0004331-US	FUEL CELL DEVICE HAVING A WATER RESERVOIR	Utility - NSPCT	US	Pending	13/003,582	Sep 12, 2008	US-2011-0111326-A1		
79	PA-0004388-KR	Voltage-Based Fluid Sensor For A Fuel Stack Assembly	Utility - NSPCT	KR	Pending	10-2011-7005199	Oct 6, 2008			
80	PA-0004388-US	Voltage-Based Fluid Sensor For A Fuel Stack Assembly	Utility - NSPCT	US	Pending	13/061,578	Mar 1, 2011	US-2011-0177415-A1		
81	PA-0004540-CN	External Manifold for Minimizing External Leakage of Reactant from Cell Stack	Utility - NSPCT	CN	Abandoned	200880132104	Nov 26, 2008			
82	PA-0004540-US	External Manifold for Minimizing External Leakage of Reactant from Cell Stack	Utility - NSPCT	US	Allowed	12/998,475	Nov 26, 2008	20110200904		
83	PA-0004541-DE	FUEL CELL PLATE FLOW FIELD	Utility - NSPCT	DE	Pending	112008004170.9	Nov 17, 2008			
84	PA-0004541-JP	FUEL CELL PLATE FLOW FIELD	Utility - NSPCT	JP	Abandoned	2011-536297	Nov 17, 2008			
85	PA-0004541-KR	FUEL CELL PLATE FLOW FIELD	Utility - NSPCT	KR	Pending	10-2011-7010136	Nov 17, 2008			
86	PA-0004541-US	FUEL CELL PLATE FLOW FIELD	Utility - NSPCT	US	Pending	13/127,990	Nov 17, 2008	US-2011-0244370-A1		
87	PA-0004544-KR	FUEL CELL SYSTEMS AND RELATED ARRANGEMENTS FOR LIMITING RELATIVE MOTION BETWEEN FUEL CELLS	Utility - NSPCT	KR	Pending	10-2011-7018432	Mar 2, 2009			
88	PA-0004544-US	FUEL CELL SYSTEMS AND RELATED ARRANGEMENTS FOR LIMITING RELATIVE MOTION BETWEEN FUEL CELLS	Utility - NSPCT	US	Issued	13/138,060	Mar 2, 2009		8,652,702	Feb 18, 2014
89	PA-0004546-EP	Fuel Cell and BiPolar Plate for Limiting Leakage	Utility - NSPCT	EP	Pending	07873694.9	Dec 26, 2007	2 235 775		
90	PA-0004546-JP	Fuel Cell and BiPolar Plate for Limiting Leakage	Utility - NSPCT	JP	Issued	2010-540624	Dec 26, 2007		5269909	May 17, 2013
91	PA-0004546-KR	Fuel Cell and BiPolar Plate for Limiting Leakage	Utility - NSPCT	KR	Issued	10-2010-7012891	Dec 26, 2007		10-1191497	Oct 9, 2012
92	PA-0004546-US	Fuel Cell and BiPolar Plate for Limiting Leakage	Utility - NSPCT	US	Pending	12/810,036	Dec 26, 2007	2010/0279208		
93	PA-0004571-US	FUEL CELL SUPPORT STRUCTURE AND METHOD OF ASSEMBLY/DISASSEMBLY THEREOF	Utility - NSPCT	US	Allowed	13/126,779	Nov 5, 2008	US-2011-0200908-A1		
94	PA-0004637-CN	High Thermal Conductivity Electrode Substrate	Utility - NSPCT	CN	Pending	200780100796.6	Sep 19, 2007	101803074		
95	PA-0004637-EP	High Thermal Conductivity Electrode Substrate	Utility - NSPCT	EP	Pending	07 842 733.3	Sep 19, 2007	2210299		
96	PA-0004637-KR	High Thermal Conductivity Electrode Substrate	Utility - NSPCT	KR	Pending	10-2010-7004682	Sep 19, 2007			
97	PA-0004637-US	High Thermal Conductivity Electrode Substrate	Utility - NSPCT	US	Pending	12/671,071	Sep 19, 2007	US 2010/0189990		
98	PA-0004842-US	Pressure-Based Liquid Level Detection and Control for a Fuel Cell Stack Assembly	Utility - NSPCT	US	Pending	13/261,225	Sep 24, 2009	US-2012-0251909-A1		
99	PA-0004893-US	Fluid Flow assemblies for, and in, Fuel Cell Stack	Utility - NSPCT	US	Pending	12/998,547	Jan 5, 2009			
100	PA-0005034-US	PLATINUM LOADED SUBSTRATE FOR A FUEL CELL AND METHOD FOR PRODUCING SAME	Utility - NSPCT	US	Pending	12/920,173	Mar 28, 2008	2011/0008715		
101	PA-0005036-US	State of Charge Calculator for Multi-Cell Energy Storage System Having Cell Balancing	Utility - NSPCT	US	Issued	12/733,435	Sep 20, 2007	US-2010-0171503-A1	8,358,136	Jan 22, 2013
102	PA-0005170-US	Fuel Cell and Flow Field Plate for Fluid Distribution	Utility - NSPCT	US	Pending	13/258,093	Apr 3, 2009			
103	PA-0005171-JP	SOLID FLOW FIELD PLATE WITH END TURNS	Utility - NSPCT	JP	Pending	2013-520693	Jul 21, 2010			
104	PA-0005171-US	SOLID FLOW FIELD PLATE WITH END TURNS	Utility - NSPCT	US	Pending	13/805,073	Jul 21, 2010	US-2013-0101923-A1		
105	PA-0005622-US	FUEL CELL CATALYST SUPPORT WITH BORON CARBIDE-COATED METAL OXIDES/PHOSPHATES AND METHOD OF MANUFACTURING SAME	Utility - NSPCT	US	Pending	13/057,308	Sep 19, 2008	US-2011-0136047-A1		
106	PA-0005626-US	Fuel Cell Catalyst Support With Fluoride-Doped Metal Oxides/Phosphates and Method of Manufacturing Same	Utility - NSPCT	US	Pending	13/057,198	Sep 17, 2008	US-2011-0136046-A1		
107	PA-0005680-US	Boron-Doped Diamond Coated Catalyst Support	Utility - NSPCT	US	Pending	13/148,552	Aug 9, 2011	US-2011-0311904-A1		
108	PA-0006448-US	A Stabilized Platinum Catalyst	Utility - NSPCT	US	Issued	12/867,153	May 16, 2008	US-2011-0143934-A1	8,304,365	Nov 6, 2012

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109	PA-0006457-US	A Fuel Cell having a Stabilized Cathode Catalyst	Utility - NSPCT	US	Issued	12/867,162	May 16, 2008	US2010/0316930 A1	8,389,175	Mar 5, 2013
765	PA-0006457-US-AA	Power Generation Method Using a Fuel Cell Having a Stabilized Cathode Catalyst	Utility - DIV	US	Pending	13/783,820	Mar 4, 2013	US-2014-0080014-A1		
110	PA-0006473-CN	Hydrophobic Coatings for PEM Electrodes	Utility - NSPCT	CN	Pending	20088012876 9.4	Apr 22, 2008	102017250		
111	PA-0006473-EP	Hydrophobic Coatings for PEM Electrodes	Utility - NSPCT	EP	Pending	08 874 056.8	Apr 22, 2008	2 277 217		
112	PA-0006473-JP	Hydrophobic Coatings for PEM Electrodes	Utility - NSPCT	JP	Pending	2011-506237	Apr 22, 2008			
113	PA-0006473-KR	Hydrophobic Coatings for PEM Electrodes	Utility - NSPCT	KR	Pending	10-2010-7023053	Apr 22, 2008			
114	PA-0006473-US	Hydrophobic Coatings for PEM Electrodes	Utility - NSPCT	US	Pending	12/736,138	Apr 22, 2008	US-2011-0008706-A1		
115	PA-0006635-US	Vehicle range improvement via partial start-stop daily decay recovery	Utility - NSPCT	US	Pending	13/261,615	Sep 15, 2010	US-2013-0197729-A1		
116	PA-0006636-US	Fuel Cell and Flow Field Plate with Flow Guide	Utility - NSPCT	US	Pending	13/258,036	Apr 3, 2009	20120009502		
117	PA-0006671-CN	Partial ion-exchange to increase membrane durability	Utility - NSPCT	CN	Pending	20088013003 0.7	Jun 24, 2008			
118	PA-0006671-IN	Partial ion-exchange to increase membrane durability	Utility - NSPCT	IN	Pending	7786/DELNP/2 010	Jun 24, 2008			
119	PA-0006671-US	Partial ion-exchange to increase membrane durability	Utility - NSPCT	US	Pending	12/736,659	Jun 24, 2008			
120	PA-0006701-US	Interdigitated Flow Field for Solid Plate Fuel Cells	Utility - NSPCT	US	Pending	13/133,511	Jan 16, 2009	US-2011-0236783-A1		
121	PA-0006763-CN	Fuel Cell Seal	Utility - NSPCT	CN	Pending	20088013163 7.7	Oct 22, 2008	102197524		
122	PA-0006763-IN	Fuel Cell Seal	Utility - NSPCT	IN	Pending	1512/DELNP/2 011	Oct 22, 2008			
123	PA-0006763-KR	Fuel Cell Seal	Utility - NSPCT	KR	Issued	10-2011-7007869	Oct 22, 2008		10-1289580	Jul 18, 2013
124	PA-0006763-US	Fuel Cell Seal	Utility - NSPCT	US	Pending	13/062,771	Oct 22, 2008	US-2011-0165494-A1		
125	PA-0006804-US	Employing GDIs with different thermal conductivities for anode and cathode for better cool operation performance	Utility - NSPCT	US	Pending	13/261,250	Oct 8, 2009	US-2012-0202134-A1		
126	PA-0006887-US	Fuel Cell and Flow Field Plate With Flow Guides	Utility - NSPCT	US	Issued	13/259,245	Apr 3, 2009	20120015274	8,623,568	Jan 7, 2014
127	PA-0006900-US	Prevention of Air Intrusion during hydrogen-Stabilized Fuel Cells During Shutdown	Utility - NSPCT	US	Allowed	12/998,737	Jan 22, 2009	US-2011-0223495-A1		
128	PA-0006966-US	CARBIDE STABILIZED CATALYST STRUCTURES AND METHOD OF MAKING	Utility - NSPCT	US	Issued	13/320,313	May 14, 2009	US-2012-0058417-A1	8,679,704	Mar 25, 2014
129	PA-0007050-US	System and method for passivating a fuel cell power plant	Utility - NSPCT	US	Abandoned	13/059,567	Feb 17, 2011	US-2011-0189570-A1		
130	PA-0007142-US	FUEL CELL WITH PURGE MANIFOLD	Utility - NSPCT	US	Pending	13/256,326	Mar 18, 2009	20120003551		
131	PA-0007171-JP	FUEL CELL CATALYST WITH METAL OXIDE/PHOSPHATE SUPPORT STRUCTURE AND METHOD OF MANUFACTURING SAME	Utility - NSPCT	JP	Issued	2011-549135	Feb 10, 2009		5244983	Apr 12, 2013
132	PA-0007171-US	FUEL CELL CATALYST WITH METAL OXIDE/PHOSPHATE SUPPORT STRUCTURE AND METHOD OF MANUFACTURING SAME	Utility - NSPCT	US	Pending	13/147,375	Feb 10, 2009	20120021337		
649	PA-0007241-CN	Control strategy to mitigate short trip BSS decay	Utility - NSPCT	CN	Pending		Dec 7, 2010	103229340		
650	PA-0007241-DE	Control strategy to mitigate short trip BSS decay	Utility - NSPCT	DE	Pending	11201000605 1.7	Dec 7, 2010	112010006051		
651	PA-0007241-JP	Control strategy to mitigate short trip BSS decay	Utility - NSPCT	JP	Pending	2013-543131	Dec 7, 2010			
652	PA-0007241-KR	Control strategy to mitigate short trip BSS decay	Utility - NSPCT	KR	Pending		Dec 7, 2010			
653	PA-0007241-US	Control strategy to mitigate short trip BSS decay	Utility - NSPCT	US	Pending	13/884,039	Dec 7, 2010			
133	PA-0007241-WO	Control strategy to mitigate short trip BSS decay	Utility - ORG	WO	Pending	PCT/US2010/0 03098	Dec 7, 2010			
134	PA-0007288-KR	Method of Open Circuit Voltage Control	Utility - NSPCT	KR	Pending	10-2011-7008877	Oct 3, 2008			
135	PA-0007288-US	Method of Open Circuit Voltage Control	Utility - NSPCT	US	Pending	12/998,152	Oct 3, 2008	US-2011-0171547-A1		

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136	PA-0007296-DE	System restart strategy to prevent long idle operations	Utility - NSPCT	DE	Pending	11201000558 2.3	May 20, 2010			
137	PA-0007296-IN	System restart strategy to prevent long idle operations	Utility - NSPCT	IN	Pending	9310/DELNP/2012	May 20, 2010			
138	PA-0007296-US	System restart strategy to prevent long idle operations	Utility - NSPCT	US	Pending	13/261,523	May 20, 2010	US-2013-0108941-A1		
139	PA-0007343-US	Solid Oxide Fuel Cell Having Rigidized Support Including Nickel Based Alloy	Utility - NSPCT	US	Pending	13/127,297	Nov 21, 2008	2011/0207020		
140	PA-0007508-US	Determining Duration of Fuel Cell Shutdown Hydrogen Stabilization by Counting Coulombs	Utility - NSPCT	US	Issued	12/998,452	Dec 4, 2008	US-2011-0200901-A1	8,673,513	Mar 18, 2014
141	PA-0007693-DE	Method for making molded WTPs	Utility - NSPCT	DE	Pending	11200900539 2.0	Nov 23, 2009			
142	PA-0007693-JP	Method for making molded WTPs	Utility - NSPCT	JP	Pending	2012-539861	Nov 23, 2009			
143	PA-0007693-US	Method for processing a porous article	Utility - NSPCT	US	Pending	13/395,746	Nov 23, 2009			
144	PA-0007893-US	FUEL CELL CONTAMINANT REMOVAL METHOD	Utility - NSPCT	US	Pending	13/697,879	May 27, 2010	US-2013-0059214-A1		
145	PA-0007906-US	Panel	Design - ORG	US	Issued	29/301,447	Feb 29, 2008		D596,594	Jul 21, 2009
146	PA-0008072-DE	Pt Monolayer on hollow-porous Pd and Pt-M alloy nanoparticles with high surface area and uses thereof	Utility - NSPCT	DE	Pending	11201000526 0.3	Feb 12, 2010	DE112010005260		
147	PA-0008072-DE-AA	Pt Monolayer on hollow-porous Pd and Pt-M alloy nanoparticles with high surface area and uses thereof	Utility - NSPCT	DE	Pending	11201000526 3.8	Feb 12, 2010	112010005263		
148	PA-0008072-IN	Pt Monolayer on hollow-porous Pd and Pt-M alloy nanoparticles with high surface area and uses thereof	Utility - NSPCT	IN	Pending	6122/DELNP/2012	Feb 12, 2010	6122/DELNP/2012		
149	PA-0008072-IN-AA	Pt Monolayer on hollow-porous Pd and Pt-M alloy nanoparticles with high surface area and uses thereof	Utility - NSPCT	IN	Pending	7537/DELNP/2012	Aug 29, 2012			
150	PA-0008072-US	PLATINUM MONOLAYER ON ALLOY NANOPARTICLES WITH HIGH SURFACE AREAS AND METHODS OF MAKING	Utility - NSPCT	US	Pending	13/578,043	Feb 12, 2010	US-2012-0309615-A1		
151	PA-0008072-US-AA	Platinum Monolayer on Hollow, Porous Nanoparticles with High Surface Areas and Method of Making	Utility - NSPCT	US	Pending	13/578,714	Feb 12, 2010	US-2012-0316060-A1		
766	PA-0008146-WO	POWER-ON approach to stack durability improvement	Utility - ORG	WO	Pending	PCT/US2013/021240	Jan 11, 2013			
152	PA-0008148-JP	Modification to the stampable flowfields to improve flow distribution in the channels for PEM fuel cells	Utility - NSPCT	JP	Pending	2013-510056	May 11, 2010			
153	PA-0008148-US	Modification to the stampable flowfields to improve flow distribution in the channels for PEM fuel cells	Utility - NSPCT	US	Pending	13/635,425	May 11, 2010	2013-0011770		
154	PA-0008290-DE	A Method for Coating High Surface Area Carbon With Metal Carbides for Electrochemical Cells Applications	Utility - NSPCT	DE	Pending	11201000555 2.1	May 10, 2010			
155	PA-0008290-JP	A Method for Coating High Surface Area Carbon With Metal Carbides for Electrochemical Cells Applications	Utility - NSPCT	JP	Pending	2013-510052	May 10, 2010			
156	PA-0008290-US	A Method for Coating High Surface Area Carbon With Metal Carbides for Electrochemical Cells Applications	Utility - NSPCT	US	Pending	13/635,423	May 10, 2010	2013-0011771-A 1		
157	PA-0008318-US-AA	COOLING, HEATING AND POWER SYSTEM WITH AN INTEGRATED PART-LOAD, ACTIVE, REDUNDANT CHILLER	Utility - NSPCT	US	Pending	12/735,662	Mar 12, 2009	US-2010-0326098-A1		
654	PA-0008390-JP	PROTON EXCHANGE MATERIAL AND METHOD THEREFOR	Utility - NSPCT	JP	Pending		Jan 11, 2011			
655	PA-0008390-US	PROTON EXCHANGE MATERIAL AND METHOD THEREFOR	Utility - NSPCT	US	Pending	13/978,721	Jul 9, 2013	US-2013-0281555-A1		

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158	PA-0008390-WO	PROTON EXCHANGE MATERIAL AND METHOD THEREFOR	Utility - ORG	WO	Closed	PCT/US2011/020806	Jan 11, 2011	2012/096653		
159	PA-0008400-JP	HYDRATING A FUEL CELL	Utility - NSPCT	JP	Pending	2013-527046	Aug 31, 2010			
160	PA-0008400-US	HYDRATING A FUEL CELL	Utility - NSPCT	US	Pending	13/818,873	Aug 31, 2010	US20130149619		
161	PA-0008837-DE	PLATINUM NANOPARTICLES HAVING HOLLOW SKELETAL STRUCTURES AND METHODS OF MAKING	Utility - NSPCT	DE	Pending	112010005261.1	Feb 12, 2010	112010005261		
162	PA-0008837-IN	PLATINUM NANOPARTICLES HAVING HOLLOW SKELETAL STRUCTURES AND METHODS OF MAKING	Utility - NSPCT	IN	Pending	6287/DELNP/2012	Feb 12, 2010			
163	PA-0008837-US	PLATINUM NANOPARTICLES HAVING HOLLOW SKELETAL STRUCTURES AND METHODS OF MAKING	Utility - NSPCT	US	Pending	13/578,039	Feb 12, 2010	US-2012-0308916-A1		
656	PA-0009174-CN	Fuel Cell Seal	Utility - NSPCT	CN	Pending	201180066090.9	Jan 28, 2011	103329326		
657	PA-0009174-EP	Fuel Cell Seal	Utility - NSPCT	EP	Pending	11 857 329.4	Jan 28, 2011	2668689		
658	PA-0009174-JP	Fuel Cell Seal	Utility - NSPCT	JP	Pending	2013-551948	Jan 28, 2011			
659	PA-0009174-KR	Fuel Cell Seal	Utility - NSPCT	KR	Pending	10-2013-7016348	Jan 28, 2011			
660	PA-0009174-US	Fuel Cell Seal	Utility - NSPCT	US	Pending	13/981,381	Jul 24, 2013			
164	PA-0009174-WO	Fuel Cell Seal	Utility - ORG	WO	Closed	PCT/US11/22801	Jan 28, 2011			
165	PA-0009239-US	Fuel Cell Water Management Arrangement	Utility - NSPCT	US	Pending	13/641,723	Oct 17, 2012	US-2013-0034798-A1		
166	PA-0009387-US	Fuel Cell Repeater Unit	Utility - NSPCT	US	Pending	12/679,772	Oct 22, 2008	US-2010-0248065-A1		
167	PA-0009387-US-AA	Fuel Cell Repeater Unit	Utility - CIP	US	Issued	12/770,032	Apr 29, 2010	+010-0209800-A1	8,574,782	Nov 5, 2013
661	PA-0009387-US-AB	Fuel Cell Repeater Unit	Utility - DIV	US	Pending	13/942,763	Jul 16, 2013	US-2013-0302716-A1		
168	PA-0009499-US	Boron-Doped Diamond Coated Carbon Catalyst Support	Utility - NSPCT	US	Pending	13/148,558	Feb 10, 2009	US-2012-0015284-A1		
169	PA-0009667-US	MULTIPLE TRANSITION FLOW FIELD AND METHOD	Utility - NSPCT	US	Allowed	13/143,796	Jul 8, 2011	US-2011-0269055-A1		
170	PA-0009975-DE	APPLYING A SEAL TO A FUEL CELL COMPONENT	Utility - NSPCT	DE	Pending	112010005551.3	May 12, 2010			
171	PA-0009975-IN	APPLYING A SEAL TO A FUEL CELL COMPONENT	Utility - NSPCT	IN	Pending	8237/DELNP/2012	May 12, 2010			
172	PA-0009975-US	APPLYING A SEAL TO A FUEL CELL COMPONENT	Utility - NSPCT	US	Pending	13/641,132	May 12, 2010	US-2013-0052565-A1		
662	PA-0010234-EP	Large electric power generators with improved efficiency	Utility - NSPCT	EP	Pending	10861278.9	Dec 27, 2010	2659574		
663	PA-0010234-JP	Large electric power generators with improved efficiency	Utility - NSPCT	JP	Pending	2013-547407	Dec 27, 2010			
664	PA-0010234-KR	Large electric power generators with improved efficiency	Utility - NSPCT	KR	Pending	10-2013-7013476	Dec 27, 2010			
665	PA-0010234-US	Cooling Arrangement Using An Electrochemical Cell	Utility - NSPCT	US	Pending	13/991,789	Jun 5, 2013			
173	PA-0010234-WO	Large electric power generators with improved efficiency	Utility - ORG	WO	Closed	PCT/US10/62132	Dec 27, 2010			
666	PA-0010274-CN	Fuel Cell Power Plant Control	Utility - ORG	CN	Pending	201180069671.8	Sep 27, 2013	103597419		
667	PA-0010274-EP	Fuel Cell Power Plant Control	Utility - ORG	EP	Pending	11862396.6	Mar 29, 2011	2691828		
668	PA-0010274-IN	Fuel Cell Power Plant Control	Utility - ORG	IN	Pending	5794/DELNP/2013	Mar 29, 2011			
669	PA-0010274-JP	Fuel Cell Power Plant Control	Utility - ORG	JP	Pending	2014-502521	Mar 29, 2011			
670	PA-0010274-KR	Fuel Cell Power Plant Control	Utility - ORG	KR	Pending	10-2013-7020542	Mar 29, 2011			
671	PA-0010274-US	Fuel Cell Power Plant Control	Utility - ORG	US	Pending	14/005,762	Sep 17, 2013			
174	PA-0010274-WO	Fuel Cell Power Plant Control	Utility - ORG	WO	Pending	PCT/US11/30242	Mar 29, 2011			
175	PA-0010289-US	FUEL CELL	Utility - NSPCT	US	Issued	13/145,962	Jan 20, 2010	US-2012-0003562-A1	8,221,932	Jul 17, 2012
176	PA-0010420-DE	SUPPORTED CATALYST	Utility - NSPCT	DE	Pending	112009005450.1	Dec 17, 2009			
177	PA-0010420-IN	SUPPORTED CATALYST	Utility - NSPCT	IN	Pending	3320/DELNP/2012	Dec 17, 2009			
178	PA-0010420-JP	SUPPORTED CATALYST	Utility - NSPCT	JP	Pending	2012-544458	Dec 17, 2009			

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179	PA-0010420-US	SUPPORTED CATALYST	Utility - NSPCT	US	Pending	13/498,665	Dec 17, 2009	US20120190536		
180	PA-0010444-WO	Changing protrusion density in flow channels	Utility - ORG	WO	Pending	PCT/US2012/021012	Jan 12, 2012			
181	PA-0010451-KR	POWER PLANT FUSE ARRANGEMENT	Utility - NSPCT	KR	Pending	10-2011-7028762	Jun 19, 2009			
182	PA-0010451-US	POWER PLANT FUSE ARRANGEMENT	Utility - NSPCT	US	Pending	13/258,097	Jun 19, 2009	US-2012-0028150-A1		
183	PA-0010525-US	Ceramic materials and process for bonding interconnects to the cathode electrode in SOFC	Utility - NSPCT	US	Pending	13/577,327	Feb 8, 2010	US-2012-0295183-A1		
184	PA-0010527-US	Alkali metal doped edge seal	Utility - NSPCT	US	Pending	13/261,621	Sep 20, 2010	US-2013-0216933-A1		
185	PA-0010544-DE	METHOD FOR TREATING A SUPPORTED CATALYST	Utility - NSPCT	DE	Pending	112009005452.8	Dec 17, 2009			
186	PA-0010544-IN	METHOD FOR TREATING A SUPPORTED CATALYST	Utility - NSPCT	IN	Pending	3319/DELNP/2012	Dec 17, 2009			
187	PA-0010544-JP	METHOD FOR TREATING A SUPPORTED CATALYST	Utility - NSPCT	JP	Pending	2012-544460	Dec 17, 2009			
188	PA-0010544-US	METHOD FOR TREATING A SUPPORTED CATALYST	Utility - NSPCT	US	Pending	13/516,932	Dec 17, 2009	US-2012-0258854-A1		
189	PA-0010571-US	External CSA Ejector Manifold	Utility - NSPCT	US	Pending	13/261,310	Dec 8, 2009	US-2012-0244455-A1		
190	PA-0010582-US	FUEL CELL SEALING CONFIGURATION	Utility - NSPCT	US	Pending	13/496,332	Nov 9, 2009	US-2012-0178009		
191	PA-0010664-US	PLATINUM MONOLAYER FOR FUEL CELL	Utility - ORG	US	Pending	13/530,201	Jun 22, 2012			
192	PA-0010765-US	Fuel Cell Reactant Inlet Humidification	Utility - NSPCT	US	Pending	13/261,390	Mar 1, 2010	US-2012-0315556-A1		
193	PA-0011103-DE	Strength benefit of perpendicularly laminated membranes	Utility - NSPCT	DE	Pending	112010005560.2	May 10, 2010			
194	PA-0011103-IN	Strength benefit of perpendicularly laminated membranes	Utility - NSPCT	IN	Pending	8993/DELNP/2012	May 10, 2010			
195	PA-0011103-JP	Strength benefit of perpendicularly laminated membranes	Utility - NSPCT	JP	Abandoned	2013-510050	May 10, 2010			
196	PA-0011103-US	Strength benefit of perpendicularly laminated membranes	Utility - NSPCT	US	Pending	13/261,510	Nov 7, 2012	US-2013-0059230-A1		
672	PA-0011362-CN	Fuel Cell Plate Bonding Method and Arrangement	Utility - NSPCT	CN	Pending	201180069274.0	Mar 15, 2011	103460480		
673	PA-0011362-EP	Fuel Cell Plate Bonding Method and Arrangement	Utility - NSPCT	EP	Pending		Mar 15, 2011	2686902		
674	PA-0011362-JP	Fuel Cell Plate Bonding Method and Arrangement	Utility - NSPCT	JP	Pending		Mar 15, 2011			
675	PA-0011362-KR	Fuel Cell Plate Bonding Method and Arrangement	Utility - NSPCT	KR	Pending	10-2013-7020759	Mar 15, 2011			
676	PA-0011362-US	Fuel Cell Plate Bonding Method and Arrangement	Utility - NSPCT	US	Pending	14/003,807	Sep 8, 2013			
197	PA-0011362-WO	Fuel Cell Plate Bonding Method and Arrangement	Utility - ORG	WO	Pending	PCT/US11/28424	Mar 15, 2011			
198	PA-0011367-US	Self Healing Sealing Glass for SOFC	Utility - NSPCT	US	Pending	13/496,883	Sep 21, 2009	US20130089811		
199	PA-0012005-US	PLATINUM-PALLADIUM CATALYST WITH INTERMEDIATE LAYER	Utility - NSPCT	US	Pending	13/497,605	Dec 28, 2009	US-2012-0329642-A1		
677	PA-0012376-KR	FUEL CELL ASSEMBLY WITH ANTI-CLOCKING FEATURES AT THE ENDS OF THE CELL STACK ASSEMBLY	Utility - NSPCT	KR	Pending	10-2013-7011785	Nov 24, 2010			
678	PA-0012376-US	FUEL CELL ASSEMBLY WITH ANTI-CLOCKING FEATURES AT THE ENDS OF THE CELL STACK ASSEMBLY	Utility - NSPCT	US	Pending	13/883,898	Nov 24, 2010			
200	PA-0012376-WO	FUEL CELL ASSEMBLY WITH ANTI-CLOCKING FEATURES AT THE ENDS OF THE CELL STACK ASSEMBLY	Utility - ORG	WO	Closed	PCT/US10/57928	Nov 24, 2010			
679	PA-0012382-CN	POROUS NANO-FIBER MATS TO REINFORCE HYDROGEN CONDUCTING MEMBRANES FOR PEM APPLICATIONS	Utility - NSPCT	CN	Pending	201180065508.4	Jan 19, 2011	103314476		
680	PA-0012382-EP	POROUS NANO-FIBER MATS TO REINFORCE HYDROGEN CONDUCTING MEMBRANES FOR PEM APPLICATIONS	Utility - NSPCT	EP	Pending	11856037.4	Jan 19, 2011	2666202		
681	PA-0012382-JP	POROUS NANO-FIBER MATS TO REINFORCE HYDROGEN CONDUCTING MEMBRANES FOR PEM APPLICATIONS	Utility - NSPCT	JP	Pending		Jan 19, 2011			

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682	PA-0012382-KR	POROUS NANO-FIBER MATS TO REINFORCE HYDROGEN CONDUCTING MEMBRANES FOR PEM APPLICATIONS	Utility - NSPCT	KR	Pending	10-2013-7016359	Jan 19, 2011			
683	PA-0012382-US	POROUS NANO-FIBER MATS TO REINFORCE HYDROGEN CONDUCTING MEMBRANES FOR PEM APPLICATIONS	Utility - NSPCT	US	Pending	13/995,580	Jan 19, 2011	US-2013-0280642-A1		
201	PA-0012382-WO	POROUS NANO-FIBER MATS TO REINFORCE HYDROGEN CONDUCTING MEMBRANES FOR PEM APPLICATIONS	Utility - ORG	WO	Pending	PCT/US11/21632	Jan 19, 2011	WO 2012/099582		
202	PA-0012407-US-AA	Pt ML on Au nanoparticles as electrocatalysts for fuel cell	Utility - ORG	US	Pending	13/101,283	May 5, 2011	20110275010		
203	PA-0012458-WO	Fuel Cell Electrode with Gradient Catalyst Structure	Utility - ORG	WO	Pending	PCT/US12/21972	Jan 20, 2012			
767	PA-0012764-WO	Low Cost Stack Design	Utility - ORG	WO	Pending	PCT/US2012/061194	Oct 19, 2012			
204	PA-0012902-EP	Fuel Cell Assembly Sealing Arrangement	Utility - NSPCT	EP	Pending	10859088.6	Oct 29, 2010			
205	PA-0012902-JP	Fuel Cell Assembly Sealing Arrangement	Utility - NSPCT	JP	Pending	2013-536574	Oct 29, 2010			
206	PA-0012902-KR	Fuel Cell Assembly Sealing Arrangement	Utility - NSPCT	KR	Pending	10-2013-7009491	Oct 29, 2010			
207	PA-0012902-US	Fuel Cell Assembly Sealing Arrangement	Utility - NSPCT	US	Pending	13/825,995	Mar 26, 2013	US-2013-0177830-A1		
208	PA-0013022-CN	Coolant FF design for freeze purge compatability	Utility - NSPCT	CN	Pending	201080070524.8	Oct 6, 2010	103503211		
209	PA-0013022-EP	Coolant FF design for freeze purge compatability	Utility - NSPCT	EP	Pending	10858210.7	Oct 6, 2010	2625738		
210	PA-0013022-JP	Coolant FF design for freeze purge compatability	Utility - NSPCT	JP	Pending	2013-532755	Oct 6, 2010			
211	PA-0013022-KR	Coolant FF design for freeze purge compatability	Utility - NSPCT	KR	Pending	10-2013-7010235	Oct 6, 2010			
212	PA-0013022-US	Coolant FF design for freeze purge compatability	Utility - NSPCT	US	Pending	13/261,627	Oct 6, 2010			
213	PA-0013054-WO	end cell with deeper channels	Utility - ORG	WO	Pending	PCT/US2012/026553	Feb 24, 2012	2013/126075		
214	PA-0013074-WO	Fuel Cell Inlet Air Processor	Utility - ORG	WO	Pending	PCT/US2012/027784	Mar 5, 2012	WO 2013/133793		
215	PA-0013494-US	Fuel Cell Coating	Utility - NSPCT	US	Pending	13/820,790	Sep 9, 2010			
684	PA-0013591-CN	LOW PLATINUM LOAD ELECTRODE	Utility - NSPCT	CN	Pending		Jul 8, 2011			
685	PA-0013591-EP	LOW PLATINUM LOAD ELECTRODE	Utility - NSPCT	EP	Pending	11869297.9	Jul 8, 2011			
686	PA-0013591-IN	LOW PLATINUM LOAD ELECTRODE	Utility - NSPCT	IN	Pending		Jul 8, 2011			
687	PA-0013591-JP	LOW PLATINUM LOAD ELECTRODE	Utility - NSPCT	JP	Pending		Jul 8, 2011			
688	PA-0013591-KR	LOW PLATINUM LOAD ELECTRODE	Utility - NSPCT	KR	Pending	10-2014-7001989	Jul 8, 2011			
689	PA-0013591-US	LOW PLATINUM LOAD ELECTRODE	Utility - NSPCT	US	Pending	14/131,379	Jul 8, 2011			
216	PA-0013591-WO	LOW PLATINUM LOAD ELECTRODE	Utility - ORG	WO	Pending	PCT/US11/01195	Jul 8, 2011	WO2013009275		
217	PA-0013640-WO	DC-DC power converter control strategy for source voltage protection	Utility - ORG	WO	Pending	PCT/US2012/038789	May 21, 2012	WO 2013/176647		
218	PA-0013645-WO	Lobed mixer in a solid oxide fuel cell (SOFC) afterburner	Utility - ORG	WO	Pending	PCT/US2012/036054	May 2, 2012			
219	PA-0013724-US-AA	Two-Layer Ceramic Coatings for Metal-Supported SOFC	Utility - ORG	US	Pending	13/100,486	May 4, 2011	20130108943		
690	PA-0013826-US	Thermal Energy Recycling Fuel Cell Arrangement	Utility - NSPCT	US	Pending	13/996,081	Jun 20, 2013			
220	PA-0013826-WO	Thermal Energy Recycling Fuel Cell Arrangement	Utility - ORG	WO	Closed	PCT/US11/20008	Jan 3, 2011			
691	PA-0013851-CN	Method To Prepare Full Monolayer Of Platinum On Palladium Based Core Nanoparticles	Utility - ORG	CN	Pending	201180066734.4	Feb 3, 2011	103370130		
692	PA-0013851-EP	Method To Prepare Full Monolayer Of Platinum On Palladium Based Core Nanoparticles	Utility - ORG	EP	Pending	11857629.7	Feb 3, 2011	2670527		
693	PA-0013851-IN	Method To Prepare Full Monolayer Of Platinum On Palladium Based Core Nanoparticles	Utility - ORG	IN	Pending	6492/DELNP/2013	Jul 19, 2013			
694	PA-0013851-JP	Method To Prepare Full Monolayer Of Platinum On Palladium Based Core Nanoparticles	Utility - ORG	JP	Pending	2013-552507	Aug 2, 2013			

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695	PA-0013851-KR	Method To Prepare Full Monolayer Of Platinum On Palladium Based Core Nanoparticles	Utility - ORG	KR	Pending	10-2013-7021853	Aug 20, 2013			
696	PA-0013851-US	Method To Prepare Full Monolayer Of Platinum On Palladium Based Core Nanoparticles	Utility - ORG	US	Pending	13/983,174	Aug 1, 2013	US-2013-0324391-A1		
221	PA-0013851-WO	Method To Prepare Full Monolayer Of Platinum On Palladium Based Core Nanoparticles	Utility - ORG	WO	Pending	PCT/US2011/023585	Feb 3, 2011	WO 2012/105978		
697	PA-0014025-EP	SHAPE CONTROLLED CORE-SHELL CATALYSTS	Utility - ORG	EP	Pending	11863978.0	Apr 18, 2011	2700118		
698	PA-0014025-IN	SHAPE CONTROLLED CORE-SHELL CATALYSTS	Utility - ORG	IN	Pending	9839/DELNP/2013	Nov 14, 2013			
699	PA-0014025-JP	SHAPE CONTROLLED CORE-SHELL CATALYSTS	Utility - ORG	JP	Pending	2014-506368	Oct 18, 2013			
700	PA-0014025-KR	SHAPE CONTROLLED CORE-SHELL CATALYSTS	Utility - ORG	KR	Pending	10-2013-7030542	Nov 18, 2013			
701	PA-0014025-US	SHAPE CONTROLLED CORE-SHELL CATALYSTS	Utility - ORG	US	Pending	14/112,075	Oct 16, 2013	US-2014-0038078-A1		
222	PA-0014025-WO	SHAPE CONTROLLED CORE-SHELL CATALYSTS	Utility - ORG	WO	Pending	PCT/US11/32849	Apr 18, 2011	WO 2012/144974		
223	PA-0014109-JP	Method of making low Pt loading electrodes	Utility - NSPCT	JP	Pending	2013-531540	Sep 30, 2010			
224	PA-0014109-US	HOT PRESSED, DIRECT DEPOSITED CATALYST LAYER	Utility - NSPCT	US	Pending	13/876,928	Sep 30, 2010	US-2013-0196245-A1		
225	PA-0014117-US	Mixed-Ionomer Electrode	Utility - NSPCT	US	Pending	13/818,366	Feb 22, 2013	US-2013-0157169-A1		
702	PA-0014119-CN	FLOW FIELD CONFIGURATION FOR FUEL CELL PLATE	Utility - ORG	CN	Pending	201180071824.2	Jun 23, 2011			
703	PA-0014119-IN	FLOW FIELD CONFIGURATION FOR FUEL CELL PLATE	Utility - ORG	IN	Pending	9462/DELNP/2013	Nov 1, 2013			
704	PA-0014119-JP	FLOW FIELD CONFIGURATION FOR FUEL CELL PLATE	Utility - ORG	JP	Pending		Jun 23, 2011			
705	PA-0014119-KR	FLOW FIELD CONFIGURATION FOR FUEL CELL PLATE	Utility - ORG	KR	Pending	10-2013-7031645	Nov 28, 2013			
706	PA-0014119-US	FLOW FIELD CONFIGURATION FOR FUEL CELL PLATE	Utility - ORG	US	Pending	14/123,666	Dec 3, 2013			
226	PA-0014119-WO	FLOW FIELD CONFIGURATION FOR FUEL CELL PLATE	Utility - ORG	WO	Pending	PCT/US11/41548	Jun 23, 2011			
227	PA-0014276-WO	Reinforced microporous layer [Apollo-227]	Utility - ORG	WO	Pending	PCT/US12/20168	Jan 4, 2012			
228	PA-0014340-WO	Fuel Cell and Ultracapacitor Hybrid Architecture	Utility - ORG	WO	Pending	PCT/US2012/000039	Jan 24, 2012			
707	PA-0014440-CN	Evaporative Cooled Hybrid Cell Concept	Utility - NSPCT	CN	Pending	201080070871.0	Dec 23, 2010			
708	PA-0014440-EP	Evaporative Cooled Hybrid Cell Concept	Utility - NSPCT	EP	Pending	10860954.6	Dec 23, 2010	2656422		
709	PA-0014440-JP	Evaporative Cooled Hybrid Cell Concept	Utility - NSPCT	JP	Pending	2013-546083	Dec 23, 2010			
710	PA-0014440-KR	Evaporative Cooled Hybrid Cell Concept	Utility - NSPCT	KR	Pending	10-2013-7016943	Dec 23, 2010			
711	PA-0014440-US	Evaporative Cooled Hybrid Cell Concept	Utility - NSPCT	US	Pending	13/261,678	Dec 23, 2010	US-2013-0260274-A1		
229	PA-0014440-WO	Evaporative Cooled Hybrid Cell Concept	Utility - ORG	WO	Pending	PCT/US2010/003240	Dec 23, 2010	2012/087265		
712	PA-0014900-CN	Unitized Electrode Assembly with High Equivalent Weight Ionomer	Utility - ORG	CN	Pending	201180069066.0	Sep 6, 2013			
713	PA-0014900-EP	Unitized Electrode Assembly with High Equivalent Weight Ionomer	Utility - ORG	EP	Pending	11861302.5	Mar 11, 2011	2684239		
714	PA-0014900-IN	Unitized Electrode Assembly with High Equivalent Weight Ionomer	Utility - ORG	IN	Pending	7380/DELNP/2013	Aug 21, 2013			
715	PA-0014900-JP	Unitized Electrode Assembly with High Equivalent Weight Ionomer	Utility - ORG	JP	Pending	100086232	Sep 10, 2013			
716	PA-0014900-KR	Unitized Electrode Assembly with High Equivalent Weight Ionomer	Utility - ORG	KR	Pending	10-2013-7022741	Aug 28, 2013			
717	PA-0014900-US	Unitized Electrode Assembly with High Equivalent Weight Ionomer	Utility - ORG	US	Pending	14/000,922	Aug 22, 2013	US-2013-0330657-A1		
230	PA-0014900-WO	Unitized Electrode Assembly with High Equivalent Weight Ionomer	Utility - ORG	WO	Closed	PCT/US11/28060	Mar 11, 2011	WO 2012/125138		
768	PA-0015101-US	Bootstrap startup of high temperature fuel cell systems on dilute hydrogen gas	Utility - ORG	US	Pending	13/589,281	Aug 20, 2012			
718	PA-0015255-CN	Targeted deposition - Desired pH ranges	Utility - ORG	CN	Pending	201180070382.X	Apr 25, 2011	103608954		

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719	PA-0015255-EP	Targeted deposition - Desired pH ranges	Utility - ORG	EP	Pending	11864594.4	Apr 25, 2011	2702625		
720	PA-0015255-IN	Targeted deposition - Desired pH ranges	Utility - ORG	IN	Pending	8146/DELNP/2013	Sep 17, 2013			
721	PA-0015255-JP	Targeted deposition - Desired pH ranges	Utility - ORG	JP	Pending	2014-508320	Apr 25, 2011			
722	PA-0015255-US	CATALYST MATERIAL FOR FUEL CELL	Utility - ORG	US	Pending	14/113,223	Oct 22, 2013	US-2014-0051008		
231	PA-0015255-WO	Targeted deposition - Desired pH ranges	Utility - ORG	WO	Pending	PCT/US11/33747	Apr 25, 2011			
723	PA-0015345-CN	SURFACTANT REMOVAL FROM PALLADIUM NANOPARTICLES	Utility - NSPCT	CN	Pending	20118007144.1.5	Jun 8, 2011			
724	PA-0015345-EP	SURFACTANT REMOVAL FROM PALLADIUM NANOPARTICLES	Utility - NSPCT	EP	Pending	11867235.1	Jun 8, 2011	2718046		
725	PA-0015345-IN	SURFACTANT REMOVAL FROM PALLADIUM NANOPARTICLES	Utility - NSPCT	IN	Pending		Jun 8, 2011			
726	PA-0015345-JP	SURFACTANT REMOVAL FROM PALLADIUM NANOPARTICLES	Utility - NSPCT	JP	Pending		Jun 8, 2011			
727	PA-0015345-KR	SURFACTANT REMOVAL FROM PALLADIUM NANOPARTICLES	Utility - NSPCT	KR	Pending		Jun 8, 2011			
728	PA-0015345-US	SURFACTANT REMOVAL FROM PALLADIUM NANOPARTICLES	Utility - NSPCT	US	Pending	14/122,546	Nov 26, 2013			
232	PA-0015345-WO	SURFACTANT REMOVAL FROM PALLADIUM NANOPARTICLES	Utility - ORG	WO	Pending	PCT/US11/001030	Jun 8, 2011	WO2012169992		
729	PA-0015374-CN	SHAPE CONTROLLED PALLADIUM AND PALLADIUM ALLOY NANOPARTICLE CATALYST	Utility - ORG	CN	Pending	20118006562.7.X	Jan 19, 2011	103370821		
730	PA-0015374-EP	SHAPE CONTROLLED PALLADIUM AND PALLADIUM ALLOY NANOPARTICLE CATALYST	Utility - ORG	EP	Pending	11856115.8	Aug 2, 2013	2666201		
731	PA-0015374-IN	SHAPE CONTROLLED PALLADIUM AND PALLADIUM ALLOY NANOPARTICLE CATALYST	Utility - ORG	IN	Pending	6315/DELNP/2013	Jul 15, 2013			
732	PA-0015374-JP	SHAPE CONTROLLED PALLADIUM AND PALLADIUM ALLOY NANOPARTICLE CATALYST	Utility - ORG	JP	Pending	2013-550457	Jul 18, 2013			
733	PA-0015374-KR	SHAPE CONTROLLED PALLADIUM AND PALLADIUM ALLOY NANOPARTICLE CATALYST	Utility - ORG	KR	Pending	10-2013-7020627	Aug 5, 2013			
734	PA-0015374-US	SHAPE CONTROLLED PALLADIUM AND PALLADIUM ALLOY NANOPARTICLE CATALYST	Utility - ORG	US	Pending	13/979,416	Jul 12, 2013	US-2013-0295486-A1		
233	PA-0015374-WO	SHAPE CONTROLLED PALLADIUM AND PALLADIUM ALLOY NANOPARTICLE CATALYST	Utility - ORG	WO	Pending	PCT/US2011/021703	Jan 19, 2011	WO 2012/099583		
735	PA-0015486-CN	INTERNAL STEAM GENERATION FOR FUEL CELL	Utility - ORG	CN	Pending	20118007038.7.2	Apr 26, 2011	103493271		
736	PA-0015486-EP	INTERNAL STEAM GENERATION FOR FUEL CELL	Utility - ORG	EP	Pending	11864203.2	Apr 26, 2011	2702626		
737	PA-0015486-IN	INTERNAL STEAM GENERATION FOR FUEL CELL	Utility - ORG	IN	Pending	8147/DELNP/2013	Sep 17, 2013			
738	PA-0015486-KR	INTERNAL STEAM GENERATION FOR FUEL CELL	Utility - ORG	KR	Pending	10-2013-7027359	Oct 17, 2013			
739	PA-0015486-US	INTERNAL STEAM GENERATION FOR FUEL CELL	Utility - ORG	US	Pending	14/113,617	Oct 24, 2013	US-2014-0045084-A1		
234	PA-0015486-WO	INTERNAL STEAM GENERATION FOR FUEL CELL	Utility - ORG	WO	Pending	PCT/US11/33848	Apr 26, 2011	WO 2012/148378		
740	PA-0015728-CN	Improve PEM durability by MEA alignment	Utility - NSPCT	CN	Pending	20118007291.8.1	Aug 18, 2011			
741	PA-0015728-EP	Improve PEM durability by MEA alignment	Utility - NSPCT	EP	Pending	11870877.5	Aug 18, 2011			
742	PA-0015728-IN	Improve PEM durability by MEA alignment	Utility - NSPCT	IN	Pending	273/DELNP/2014	Aug 18, 2011			
743	PA-0015728-JP	Improve PEM durability by MEA alignment	Utility - NSPCT	JP	Pending		Aug 18, 2011			
744	PA-0015728-KR	Improve PEM durability by MEA alignment	Utility - NSPCT	KR	Pending	10-2014-7004144	Aug 18, 2011			
745	PA-0015728-US	FUEL CELL AND MEMBRANE THEREFORE	Utility - NSPCT	US	Pending	14/239,149	Feb 17, 2014			
235	PA-0015728-WO	Improve PEM durability by MEA alignment	Utility - ORG	WO	Pending	PCT/US11/48172	Aug 18, 2011	WO 2013/025216		
746	PA-0015881-CN	FREEZE TOLERANT FUEL CELL FUEL PRESSURE REGULATOR	Utility - ORG	CN	Pending	20118006674.0.X	Feb 3, 2011	103339774		
747	PA-0015881-EP	FREEZE TOLERANT FUEL CELL FUEL PRESSURE REGULATOR	Utility - ORG	EP	Pending	11 857 593.5	Feb 3, 2011	2671276		
748	PA-0015881-IN	FREEZE TOLERANT FUEL CELL FUEL PRESSURE REGULATOR	Utility - ORG	IN	Pending	5796/DELNP/2013	Feb 3, 2011			

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749	PA-0015881-JP	FREEZE TOLERANT FUEL CELL FUEL PRESSURE REGULATOR	Utility - ORG	JP	Pending	2013-552505	Feb 3, 2011			
750	PA-0015881-KR	FREEZE TOLERANT FUEL CELL FUEL PRESSURE REGULATOR	Utility - ORG	KR	Pending	10-2013-7020197	Feb 3, 2011			
751	PA-0015881-US	FREEZE TOLERANT FUEL CELL FUEL PRESSURE REGULATOR	Utility - ORG	US	Pending	13/976,105	Jun 26, 2013	US-2013-0273448-A1		
236	PA-0015881-WO	FREEZE TOLERANT FUEL CELL FUEL PRESSURE REGULATOR	Utility - ORG	WO	Pending	PCT/US11/23559	Feb 3, 2011	WO 2012/105975		
752	PA-0015967-CN	METHOD OF FORMING A CATALYST WITH AN ATOMIC LAYER OF PLATINUM ATOMS	Utility - NSPCT	CN	Pending	201180068250.3	Feb 22, 2011	103402631		
753	PA-0015967-EP	METHOD OF FORMING A CATALYST WITH AN ATOMIC LAYER OF PLATINUM ATOMS	Utility - NSPCT	EP	Pending	11859588.3	Feb 22, 2011	2678105		
754	PA-0015967-IN	METHOD OF FORMING A CATALYST WITH AN ATOMIC LAYER OF PLATINUM ATOMS	Utility - NSPCT	IN	Pending	5793/DELNP/2013	Feb 22, 2011			
755	PA-0015967-JP	METHOD OF FORMING A CATALYST WITH AN ATOMIC LAYER OF PLATINUM ATOMS	Utility - NSPCT	JP	Pending	2013-555400	Feb 22, 2011			
756	PA-0015967-KR	METHOD OF FORMING A CATALYST WITH AN ATOMIC LAYER OF PLATINUM ATOMS	Utility - NSPCT	KR	Pending	10-2013-7020538	Feb 22, 2011			
757	PA-0015967-US	METHOD OF FORMING A CATALYST WITH AN ATOMIC LAYER OF PLATINUM ATOMS	Utility - NSPCT	US	Pending	14/000,636	Aug 21, 2013	20130324394		
237	PA-0015967-WO	METHOD OF FORMING A CATALYST WITH AN ATOMIC LAYER OF PLATINUM ATOMS	Utility - ORG	WO	Pending	PCT/US11/25693	Feb 22, 2011	WO 2012/115624		
758	PA-0016236-CN	Stop and Go Cell Voltage Limiting	Utility - ORG	CN	Pending	201180070348.2	Oct 23, 2013			
759	PA-0016236-EP	Stop and Go Cell Voltage Limiting	Utility - ORG	EP	Pending	11859240.1	Feb 25, 2011	2678895		
760	PA-0016236-IN	Stop and Go Cell Voltage Limiting	Utility - ORG	IN	Pending	7109/DELNP/2013	Aug 8, 2013			
761	PA-0016236-JP	Stop and Go Cell Voltage Limiting	Utility - ORG	JP	Pending	2013-555397	Aug 23, 2013			
762	PA-0016236-KR	Stop and Go Cell Voltage Limiting	Utility - ORG	KR	Pending	10-2013-7024900	Sep 23, 2013			
763	PA-0016236-US	Stop and Go Cell Voltage Limiting	Utility - ORG	US	Pending	13/261,721	Aug 22, 2013	US-2013-0320910-A1		
238	PA-0016236-WO	Stop and Go Cell Voltage Limiting	Utility - ORG	WO	Pending	PCT/US2011/000349	Feb 25, 2011	WO 2012/115605		
769	PA-0016358-WO	METHOD AND APPARATUS FOR ANALYZING A MATERIAL	Utility - ORG	WO	Pending	PCT/US12/42884	Jun 18, 2012			
239	PA-0017638-WO	FUEL CELL ASSEMBLY AND METHOD OF CONTROL	Utility - ORG	WO	Pending	PCT/US11/64051	Dec 9, 2011			
770	PA-0017742-WO	FUEL CELL COMPONENT HAVING SELECTED COOLING CAPACITY DISTRIBUTION	Utility - ORG	WO	Pending	PCT/US12/53086	Aug 30, 2012			
771	PA-0017780-WO	Highly proton-conducting composite membranes for PEM fuel cells	Utility - ORG	WO	Pending	PCT/US12/71391	Dec 21, 2012			
772	PA-0017786-WO	Cross-linking of low EW perfluorinated polymers for PEM applications	Utility - ORG	WO	Pending	PCT/US12/71358	Dec 21, 2012			
773	PA-0018177-WO	Platinum alloy nano catalyst with a non-platinum core	Utility - ORG	WO	Pending	PCT/US12/61286	Oct 22, 2012			
774	PA-0018188-US	FUEL CELL DEVICE AND METHOD OF MANAGING MOISTURE WITHIN A FUEL CELL DEVICE	Utility - ORG	US	Pending	13/705,448	Dec 5, 2012			
240	PA-0018338-WO	System Water Balancing	Utility - ORG	WO	Pending	PCT/US11/62855	Dec 1, 2011			
241	PA-0018409-WO	Novel electrode ink preparations for high performance CCMs	Utility - ORG	WO	Pending	PCT/US12/34664	Apr 23, 2012			
242	PA-0018533-WO	Cure in place Interfacial seal	Utility - ORG	WO	Pending	PCT/US12/46028	Jul 10, 2012	WO 2014/011152		
775	PA-0018690-WO	Limit based threshold estimation for prognostics and health management	Utility - ORG	WO	Pending	PCT/US12/70287	Dec 18, 2012			
243	PA-0018733-WO	FUEL CELL COOLANT FLOWFIELD CONFIGURATION	Utility - ORG	WO	Pending	PCT/US12/47509	Jul 20, 2012			
244	PA-0018823-WO	FUEL CELL ASSEMBLY AND METHOD OF CONTROL	Utility - ORG	WO	Pending	PCT/US12/32829	Apr 10, 2012			
245	PA-0018825-WO	METHOD OF MANUFACTURING MULTIPLE FUEL CELL SEPARATOR PLATE ASSEMBLIES [Apollo-245]	Utility - ORG	WO	Pending	PCT/US12/20265	Jan 5, 2012			
776	PA-0018861-WO	Reactant Flow Channel Configuration to Facilitate Water Removal	Utility - ORG	WO	Pending	PCT/US12/54102	Sep 7, 2012			

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777	PA-0018980-US	Cost Effective Catalyzed Wall Heat Exchanger	Utility - ORG	US	Pending	13/735,237	Jan 7, 2013			
246	PA-0019168-WO	FUEL CELL GAS DIFFUSION LAYER WITH MOLDED ON SEAL	Utility - ORG	WO	Pending	PCT/US12/41523	Jun 8, 2012			
247	PA-0019178-WO	FUEL CELL ELECTRODE ASSEMBLY	Utility - ORG	WO	Pending	PCT/US12/46042	Jul 10, 2012			
778	PA-0019213-US	Anode Recycle Blower for SOFC Power Plant	Utility - ORG	US	Pending	13/567,162	Aug 6, 2012			
248	PA-0019220-US	SOLID OXIDE FUEL CELL POWER PLANT WITH A MOLTEN METAL ANODE	Utility - ORG	US	Pending	13/455,191	Apr 25, 2012			
249	PA-0019402-US	FUEL CELL COMPONENT WITH EMBEDDED POWER CONNECTOR	Utility - ORG	US	Pending	13/495,353	Jun 13, 2012			
779	PA-0019457-WO	FUEL CELL GAS INLET MANIFOLD DRAIN	Utility - ORG	WO	Pending	PCT/US12/39232	May 24, 2012			
250	PA-0019468-WO	FUEL CELL COMPONENT HAVING DIMENSIONS SELECTED TO MAXIMIZE A USEFUL AREA	Utility - ORG	WO	Pending	PCT/US12/40848	Jun 5, 2012			
780	PA-0019565-WO	Improved WTP properties by resin specification	Utility - ORG	WO	Pending	PCT/US12/53827	Sep 6, 2012			
781	PA-0019757-WO	FUEL CELL CATALYST TREATMENT	Utility - ORG	WO	Pending	PCT/US13/20606	Jan 8, 2013			
251	PA-0020682-US	Fuel Cell Fluid Channels	Utility - ORG	US	Pending	13/489,452	Jun 5, 2012	US-2013-0323623-A1		
252	PA-0020715-US	Compact Fuel Cell System	Utility - ORG	US	Pending	13/454,270	Apr 24, 2012			
253	PA-0020828-WO	Microporous Layer With Hydrophilic Additives	Utility - ORG	WO	Pending	PCT/US2012/047386	Jul 19, 2012	WO 2014/014463		
782	PA-0021389-WO	SERPENTINE FLOW FIELD WITH VARYING NUMBERS OF CHANNEL PORTIONS	Utility - ORG	WO	Pending	PCT/US12/52589	Aug 28, 2012			
783	PA-0021895-WO	Assembly for Making a Fuel Cell Component and a Method of Using the Assembly	Utility - ORG	WO	Pending	PCT/US13/26671	Feb 19, 2013			
784	PA-0021915-WO	FUEL CELL MEMBRANE ELECTRODE ASSEMBLY FABRICATION PROCESS	Utility - ORG	WO	Pending	PCT/US12/62057	Oct 26, 2012			
785	PA-0021919-US	FUEL CELL COMPONENT INCLUDING A VAPOR PERMEABLE LAYER	Utility - ORG	US	Pending	13/588,066	Aug 17, 2012			
786	PA-0022191-JP	TSN201200668 The Production Method of a Catalyst for Fuel Cells	Utility - ORG	JP	Pending	2012-111402	May 15, 2012			
787	PA-0022315-WO	Low EW linear perfluorinated sulfonimide Polymer electrolyte for PEM applications	Utility - ORG	WO	Pending	PCT/US12/71405	Dec 21, 2012			
788	PA-0023488-WO	A method to create Pd alloys with adjustable electrochemical surface area	Utility - ORG	WO	Pending	PCT/US12/67574	Dec 3, 2012			
789	PA-0023517-WO	Silicone resistant WTP	Utility - ORG	WO	Pending	PCT/US12/67333	Nov 30, 2012			
790	PA-0024416-JP	TSN201109109 Removal of Shell Defect of Core Shell Catalyst by Acid Treatment	Utility - ORG	JP	Pending	JP2011-20129	Feb 1, 2011			
791	PA-0024416-WO	TSN201109109 Removal of Shell Defect of Core Shell Catalyst by Acid Treatment	Utility - ORG	WO	Pending	PCT/JP2011/076441	Nov 16, 2011	WO2012105107		
254	PA-062.04528-US	REINFORCEMENT STRUCTURES FOR SOLID OXIDE FUEL CELLS	Utility - ORG	US	Issued	10/790,577	Mar 1, 2004		7,344,793	Mar 18, 2008
255	PA-062.04642-US	INTERCONNECT DESIGN THAT ELIMINATES CTE MISMATCH ISSUES IN METAL/CERAMIC PLANAR SOLID OXIDE FUEL CELL	Utility - ORG	US	Issued	10/307,008	Nov 27, 2002		7,144,649	Dec 5, 2006
256	PA-062.04871-US-AA	PLANAR SOLID OXIDE FUEL CELL STACKS COMPRISING COMPLIANT, STRAIN TOLERANT SEALS AND COMPLIANT, STRAIN TOLERANT INTERCONNECTS	Utility - ORG	US	Issued	10/622,881	Jul 18, 2003		7,977,004	Jul 12, 2011
257	PA-062.04914-JP	Metal Alanates Doped with Oxygen	Utility - NSPCT	JP	Issued	2007-533628	Sep 27, 2005		4633799	Nov 26, 2010
258	PA-062.05017-US-AB	SOLID OXIDE FUEL CELL STACK FOR PORTABLE POWER GENERATION	Utility - NSPCT	US	Pending	12/515,236	May 15, 2009	US-2010-0015491-A1		
259	PA-062.05234-US	MULTI-WIRE, LONG-LIFE INTERCONNECTS FOR FUEL CELL STACKS	Utility - NSPCT	US	Pending	12/521,373	Dec 28, 2006	US-2010-0129731-A1		

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260	PA-062.05472-US-AA	3D COMPLIANCE ENABLED IN-PLANE FOOT PRINT SCALE-UP OF SOLID OXIDE FUEL CELL STACKS	Utility - NSPCT	US	Pending	10/577,754	Apr 27, 2006	US-2006-0210858-A1		
261	PA-062.05712-US	COMPOSITE SEAL FOR FUEL CELLS, PROCESS OF MANUFACTURE, AND FUEL CELL STACK USING SAME	Utility - NSPCT	US	Pending	13/806,152	Jun 25, 2010	US-2013-010915-A1		
262	PA-062.05832-US-AA	HIGH SPECIFIC POWER SOLID OXIDE FUEL CELL STACK	Utility - NSPCT	US	Abandoned	11/793,621	Jun 19, 2007			
263	PA-062.05922-US	ASYMMETRIC DOVETAIL INTERCONNECT FOR USE IN A SOLID OXIDE FUEL CELL	Utility - NSPCT	US	Issued	12/520,628	Dec 27, 2006	US-2010-0021791-A1	8,124,293	Feb 28, 2012
264	PA-079.01896-US-C	POROUS CARBON BODY WITH INCREASED WETTABILITY BY WATER	Utility - CPA	US	Issued	08/751,543	Nov 15, 1996		5,840,414	Nov 24, 1998
265	PA-079.01914-US-B	ION EXCHANGE MEMBRANE FUEL CELL POWER PLANT WITH WATER MANAGEMENT PRESSURE DIFFERENTIALS	Utility - ORG	US	Issued	08/494,132	Jun 23, 1995		5,700,595	Dec 23, 1997
266	PA-079.01914-US-C	ION EXCHANGE MEMBRANE FUEL CELL POWER PLANT WITH WATER MANAGEMENT PRESSURE DIFFERENTIALS	Utility - CON	US	Issued	08/956,120	Oct 22, 1997		5,853,909	Dec 29, 1998
267	PA-079.01954-US	FUEL CELL WITH IMPROVED SEALING BETWEEN INDIVIDUAL MEMBRANE ASSEMBLIES AND PLATE ASSEMBLIES	Utility - ORG	US	Issued	09/176,355	Oct 21, 1998		6,165,634	Dec 16, 2000
268	PA-079.01961-US-A	FUEL CELL WITH WATER CAPILLARY EDGE SEAL	Utility - CPA	US	Issued	09/121,756	Jul 23, 1998		6,187,466	Feb 13, 2001
269	PA-079.01965-DE	WATER MANAGEMENT SYSTEM FOR SOLID POLYMER FUEL CELL POWER PLANTS	Utility - EPPAT	DE	Issued	96924484.7	Jun 25, 1996		69608106.7	May 3, 2000
270	PA-079.01965-JP	WATER MANAGEMENT SYSTEM FOR SOLID POLYMER FUEL CELL POWER PLANTS	Utility - NSPCT	JP	Issued	9-505326	Jun 25, 1996	P3862756	3862756	Oct 6, 2006
271	PA-079.01965-US	WATER MANAGEMENT SYSTEM FOR SOLID POLYMER FUEL CELL POWER PLANTS	Utility - ORG	US	Issued	08/497,674	Jun 30, 1995		5,503,944	Apr 2, 1996
272	PA-079.01975-JP	WATER MANAGEMENT SYSTEM FOR FUEL CELL	Utility - NSPCT	JP	Issued	2000-604474	Mar 9, 2000	4726301	4726301	Apr 22, 2011
273	PA-079.01975-US-A	WATER MANAGEMENT SYSTEM FOR FUEL CELL	Utility - CON	US	Issued	10/071,626	Feb 8, 2002		6,723,461	Apr 20, 2004
274	PA-079.01997-US	FUEL CELL TRANSPORT FRAME	Utility - ORG	US	Issued	08/435,693	May 5, 1995		5,607,786	Mar 4, 1997
275	PA-079.02007-US	COMPACT SELECTIVE OXIDIZER ASSEMBLY FOR FUEL CELL POWER PLANT	Utility - ORG	US	Issued	08/584,512	Jan 11, 1996		5,853,674	Dec 29, 1998
276	PA-079.02069-JP	MASS AND HEAT RECOVERY SYSTEM FOR A FUEL CELL POWER PLANT	Utility - NSPCT	JP	Issued	2000-556407	Jun 24, 1999	4590098	4590098	Sep 17, 2010
277	PA-079.02124-DE	SUBAMBIENT PRESSURE COOLANT LOOP FOR A FUEL CELL POWER PLANT	Utility - EPPAT	DE	Issued	601 35 914.3-08	Jun 22, 2001			Sep 24, 2008
278	PA-079.02124-IN	SUBAMBIENT PRESSURE COOLANT LOOP FOR A FUEL CELL POWER PLANT	Utility - NSPCT	IN	Issued	IN/PCT/2002/01284/DEL	Jun 22, 2001		245327	Jan 13, 2011
279	PA-079.02124-JP	SUBAMBIENT PRESSURE COOLANT LOOP FOR A FUEL CELL POWER PLANT	Utility - NSPCT	JP	Issued	2002-513038	Jun 22, 2001		4959902	Mar 30, 2012
280	PA-079.02124-KR	SUBAMBIENT PRESSURE COOLANT LOOP FOR A FUEL CELL POWER PLANT	Utility - NSPCT	KR	Issued	10-2002-7017973	Jun 22, 2001		10-758782	Sep 7, 2007
281	PA-079.02124-US	SUBAMBIENT PRESSURE COOLANT LOOP FOR A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	09/615,231	Jul 13, 2000		6,368,737	Apr 9, 2002
282	PA-079.02131-US	BURNER EXHAUST RECYCLE FOR WATER RECOVERY IN PEM FUEL CELL POWER PLANTS	Utility - ORG	US	Issued	09/118,546	Jul 17, 1998		6,277,508	Aug 21, 2001
283	PA-079.02138-US	START UP OF A FROZEN FUEL CELL	Utility - ORG	US	Issued	09/092,193	Jun 5, 1998		6,103,410	Aug 15, 2000
284	PA-079.02142-US	LOW TEMPERATURE SHUTDOWN FOR FUEL CELL POWER PLANTS	Utility - ORG	US	Issued	09/123,709	Jul 28, 1998		6,093,500	Jul 25, 2000
285	PA-079.02142-US-A	METHOD AND APPARATUS FOR OPERATING A FUEL CELL SYSTEM	Utility - DIV	US	Issued	09/525,728	May 26, 2000		6,519,510	Feb 11, 2003
286	PA-079.02142-US-B	LOW TEMPERATURE SHUTDOWN FOR FUEL CELL POWER PLANTS	Utility - ORG	US	Issued	10/266,065	Oct 7, 2002		6,936,360B2	Aug 30, 2005
287	PA-079.02143-US	SYSTEM FOR DESULFURIZING A FUEL CELL FOR USE IN A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	09/104,254	Jun 24, 1998		6,156,084	Dec 5, 2000

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288	PA-079.02143-US-A	SYSTEM FOR DESULFURIZING A FUEL CELL FOR USE IN A FUEL CELL POWER PLANT	Utility - DIV	US	Issued	09/439,602	Nov 12, 1999		6,159,256	Dec 12, 2000
289	PA-079.02149-US	WATER RETENTION SYSTEM FOR A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	09/201,262	Nov 30, 1998		6,312,842	Nov 6, 2001
290	PA-079.02162-US	SYSTEM FOR PREVENTION OF GAS POCKET FORMATION IN A PEM COOLANT FLOW FIELD	Utility - ORG	US	Issued	09/141,086	Aug 27, 1998		6,306,530	Oct 23, 2001
291	PA-079.02170-US	PRESSURIZED WATER RECOVERY SYSTEM FOR A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	09/221,338	Dec 28, 1998		6,171,718B1	Jan 9, 2001
292	PA-079.02172-US	POLYMERIC HEADER FOR FUEL CELL PRESSURE PLATE ASSEMBLIES	Utility - ORG	US	Issued	09/139,314	Aug 25, 1998		6,048,635	Apr 11, 2000
293	PA-079.02179-US	A FUEL CELL POWER PLANT HAVING AN INTEGRATED MANIFOLD SYSTEM	Utility - ORG	US	Issued	09/454,020	Dec 3, 1999		6,403,247	Jun 11, 2002
294	PA-079.02196-US	METHOD AND APPARATUS FOR THERMAL MANAGEMENT OF A FUEL CELL ASSEMBLY	Utility - ORG	US	Issued	09/322,733	May 28, 1999		6,248,462	Jun 19, 2001
295	PA-079.02208-US	MEMBRANE ELECTRODE ASSEMBLY FOR PEM FUEL CELL	Utility - ORG	US	Issued	09/182,959	Oct 30, 1998		6,020,083	Feb 1, 2000
296	PA-079.02223-US	MASS TRANSFER COMPOSITE MEMBRANE FOR A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	09/168,511	Oct 8, 1998		6,048,383	Apr 11, 2000
297	PA-079.02225-US	WATER TREATMENT SYSTEM FOR A FUEL CELL ASSEMBLY	Utility - ORG	US	Issued	09/295,732	Apr 20, 1999		6,207,308	Mar 27, 2001
298	PA-079.02227-US	METHOD AND APPARATUS FOR IMPROVED DELIVERY OF INPUT REACTANTS TO A FUEL CELL ASSEMBLY	Utility - ORG	US	Issued	09/265,139	Mar 8, 1999		6,497,971	Dec 24, 2002
299	PA-079.02232-US	A GAS INJECTION SYSTEM FOR TREATING A FUEL CELL STACK ASSEMBLY	Utility - ORG	US	Issued	09/243,225	Feb 3, 1999		6,238,817	May 29, 2001
300	PA-079.02232-US-A	A GAS INJECTION SYSTEM FOR TREATING A FUEL CELL STACK ASSEMBLY	Utility - DIV	US	Issued	09/769,598	Jan 25, 2001		6,572,992	Jun 3, 2003
301	PA-079.02234-EP	WATER TRANSPORT PLATE AND METHOD OF USING SAME	Utility - NSPCT	EP	Pending	99928696.6	Jun 16, 1999	1116293		
302	PA-079.02234-JP	WATER TRANSPORT PLATE AND METHOD OF USING SAME	Utility - NSPCT	JP	Issued	2000-555312	Jun 16, 1999	P4669610	4669610	Jan 21, 2011
303	PA-079.02234-JP-AA	WATER TRANSPORT PLATE AND METHOD OF USING SAME	Utility - DIV	JP	Issued	2009-289906	Dec 22, 2009		4672080	Jan 28, 2011
304	PA-079.02234-KR	WATER TRANSPORT PLATE AND METHOD OF USING SAME	Utility - NSPCT	KR	Issued	20007014150	Jun 16, 1999		10-0604291	Jul 18, 2006
305	PA-079.02234-US-AR	METHOD OF USING A WATER TRANSPORT PLATE	Utility - REIS	US	Issued	10/383,791	Mar 6, 2003		RE39,348	Oct 17, 2006
306	PA-079.02243-DE	USE OF THERMOPLASTIC FILMS TO CREATE SEALS AND BOND PEM CELL COMPONENTS	Utility - NSPCT	DE	Pending	199 83 846.1	Dec 17, 1999			
307	PA-079.02243-US	USE OF THERMOPLASTIC FILMS TO CREATE SEALS AND BOND PEM CELL COMPONENTS	Utility - ORG	US	Issued	09/220,472	Dec 23, 1998		6,159,628	Dec 12, 2000
308	PA-079.02249-US-B	PROTON EXCHANGE MEMBRANE FUEL CELL EXTERNAL MANIFOLD SEAL	Utility - CIP	US	Issued	09/882,750	Jun 15, 2001		6,660,422	Dec 9, 2003
309	PA-079.02252-JP	COLD STARTING OF GASOLINE FUELED FUEL CELL	Utility - NSPCT	JP	Issued	2002-581609	Apr 5, 2002	4452018	4452018	Feb 5, 2010
310	PA-079.02252-US	COLD STARTING OF GASOLINE FUELED FUEL CELL	Utility - ORG	US	Issued	09/832,275	Apr 10, 2001		6,548,200	Apr 15, 2003
311	PA-079.02253-US	PURGED ANODE, LOW EFFLUENT CELL	Utility - ORG	US	Issued	09/220,470	Dec 23, 1998		6,124,054	Sep 26, 2000
312	PA-079.02254-JP	OPERATING SYSTEM FOR A FUEL CELL POWER PLANT	Utility - NSPCT	JP	Issued	2001-505091	Jun 22, 2000	4782331	4782331	Jul 15, 2011
313	PA-079.02254-US	OPERATING SYSTEM FOR A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	09/338,608	Jun 23, 1999		6,331,366	Dec 18, 2001
314	PA-079.02257-US	FUEL CELL STACK HAVING A REDUCED VOLUME	Utility - ORG	US	Issued	10/689,238	Oct 20, 2003		6,833,211	Dec 21, 2004
315	PA-079.02262-US	COMPACT AND LIGHT WEIGHT CATALYST BED FOR USE IN A FUEL CELL POWER PLANT AND METHOD FOR FORMING THE SAME	Utility - ORG	US	Issued	09/252,154	Feb 18, 1999		6,140,266	Oct 31, 2000
316	PA-079.02266-DE	POROUS CARBON BODY WITH INCREASED WETTABILITY BY WATER	Utility - NSPCT	DE	Pending	10085464.8	Aug 30, 2000			
317	PA-079.02266-JP	POROUS CARBON BODY WITH INCREASED WETTABILITY BY WATER	Utility - NSPCT	JP	Pending	2001-520495	Aug 30, 2000			

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318	PA-079.02266-US	POROUS CARBON BODY WITH INCREASED WETTABILITY BY WATER	Utility - ORG	US	Issued	09/389,117	Sep 2, 1999		6,258,476	Jul 10, 2001
319	PA-079.02269-US-A	DIRECT ANTIFREEZE COOLED FUEL CELL	Utility - DIV	US	Issued	10/037,195	Nov 9, 2001		6,794,073	Sep 21, 2004
320	PA-079.02270-US	COMPACTSELECTIVE OXIDIZER ASSEMBLAGE FOR A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	09/273,735	Mar 22, 1999		6,284,206	Sep 4, 2001
321	PA-079.02278-US	BI-ZONE WATER TRANSPORT PLATE FOR A FUEL CELL	Utility - ORG	US	Issued	09/940,198	Aug 27, 2001		6,617,068	Sep 9, 2003
322	PA-079.02288-JP	FINE PORE ENTHALPY EXCHANGE BARRIER	Utility - NSPCT	JP	Issued	2001-524176	Aug 26, 2002	2005501386	4750334	May 27, 2011
323	PA-079.02288-US	FINE PORE ENTHALPY EXCHANGE BARRIER	Utility - ORG	US	Issued	09/395,704	Sep 14, 1999		6,274,259	Aug 14, 2001
324	PA-079.02290-US	COMPACT LIGHT WEIGHT CONDENSER ASSEMBLY	Utility - ORG	US	Issued	09/866,994	May 29, 2001		6,537,351	Mar 25, 2003
325	PA-079.02291-US	HUMIDIFICATION SYSTEM FOR A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	09/357,259	Jul 20, 1999		6,322,915	Nov 27, 2001
326	PA-079.02295-US	METHOD AND APPARATUS FOR REMOVING CONTAMINANTS FROM THE COOLANT SUPPLY OF A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	09/417,816	Oct 14, 1999		6,242,118	Jun 5, 2001
327	PA-079.02300-US	MANIFOLD ASSEMBLY FOR A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	09/740,499	Dec 19, 2000	0076601-A1	6,632,556	Oct 14, 2003
328	PA-079.02316-JP-B	FUNCTIONAL INTEGRATION OF MULTIPLE COMPONENTS FOR A FUEL CELL POWER PLANT	Utility - ORG	JP	Issued	2003-531547	Sep 27, 2002	4624670	4624670	Nov 12, 2010
329	PA-079.02316-US	FUNCTIONAL INTEGRATION OF MULTIPLE COMPONENTS FOR A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	09/544,103	Apr 6, 2000		6,451,466	Sep 17, 2002
330	PA-079.02316-US-A	FUNCTIONAL INTEGRATION OF MULTIPLE COMPONENTS FOR A FUEL CELL POWER PLANT	Utility - CIP	US	Issued	09/966,978	Sep 27, 2001		6,605,378	Aug 12, 2003
331	PA-079.02346-US	BONDED FUEL CELL STACK ASSEMBLIES	Utility - CIP	US	Issued	09/666,736	Sep 20, 2000		6,387,557	May 14, 2002
332	PA-079.02357-US	METHOD AND APPARATUS FOR REGENERATING THE PERFORMANCE OF A PEM FUEL CELL	Utility - ORG	US	Issued	09/602,361	Jun 22, 2000		6,399,231	Jun 4, 2002
333	PA-079.02359-JP	ONE PIECE SLEEVE GAS MANIFOLD FOR CELL STACK ASSEMBLIES SUCH AS FUEL CELLS	Utility - NSPCT	JP	Issued	2004-536373	Sep 9, 2003	4617159	4617159	Oct 29, 2010
334	PA-079.02363-JP	METHOD AND APPARATUS FOR THE OPERATION OF A CELL STACK ASSEMBLY DURING SUBFREEZING TEMPERATURES	Utility - NSPCT	JP	Issued	2002-579363	Apr 5, 2002		4663960	Jan 14, 2011
335	PA-079.02363-US	METHOD AND APPARATUS FOR THE OPERATION OF A CELL STACK ASSEMBLY DURING SUBFREEZING TEMPERATURES	Utility - ORG	US	Issued	09/826,739	Apr 5, 2001		6,596,426	Jul 22, 2003
336	PA-079.02370-US-B	FUEL CELL HAVING A HYDROPHILIC SUBSTRATE LAYER	Utility - CON	US	Issued	10/722,946	Nov 26, 2003		7,258,945	Aug 21, 2007
337	PA-079.02375-US	COMPACT PRECOOLER	Utility - ORG	US	Issued	09/736,868	Dec 15, 2000		6,548,198	Apr 15, 2003
338	PA-079.02375-US-B	COMPACT PRECOOLER	Utility - DIV	US	Issued	10/358,502	Feb 5, 2003		6,866,951	Mar 15, 2005
339	PA-079.02377-DE-A	FUEL CELL HAVING INTERDIGITATED FLOW CHANNELS AND WATER TRANSPORT PLATES	Utility - NSPCT	DE	Issued	100 85 386.2	Dec 15, 2000		10085386	Aug 22, 2013
340	PA-079.02377-JP-A	FUEL CELL HAVING INTERDIGITATED FLOW CHANNELS AND WATER TRANSPORT PLATES	Utility - NSPCT	JP	Abandoned	2001-545386	Dec 15, 2000			
341	PA-079.02377-US-A	FUEL CELL HAVING INTERDIGITATED FLOW CHANNELS AND WATER TRANSPORT PLATES	Utility - CIP	US	Issued	09/733,133	Dec 8, 2000		6,780,533	Aug 24, 2004
342	PA-079.02387-US	METHOD AND APPARATUS FOR INCREASING THE OPERATIONAL EFFICIENCY OF A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	09/748,037	Dec 22, 2000		6,682,835	Jan 27, 2004
343	PA-079.02389-CN-A	PROCEDURE FOR SHUTTING DOWN A FUEL CELL SYSTEM USING AIR PURGE	Utility - NSPCT	CN	Issued	20038010425 1.4	Nov 19, 2003		ZL20038010425.4	Jul 29, 2009

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344	PA-079.02389-DE-A	PROCEDURE FOR SHUTTING DOWN A FUEL CELL SYSTEM USING AIR PURGE	Utility - NSPCT	DE	Pending	103 93 774.9	Nov 19, 2003			
345	PA-079.02389-IN-A	PROCEDURE FOR SHUTTING DOWN A FUEL CELL SYSTEM USING AIR PURGE	Utility - NSPCT	IN	Issued	1794/DELNP/2005	Nov 19, 2003		247361	Mar 31, 2011
346	PA-079.02389-JP-A	PROCEDURE FOR SHUTTING DOWN A FUEL CELL SYSTEM USING AIR PURGE	Utility - NSPCT	JP	Issued	2004-555546	Nov 19, 2003	4750420	4750420	May 27, 2011
347	PA-079.02389-KR-A	PROCEDURE FOR SHUTTING DOWN A FUEL CELL SYSTEM USING AIR PURGE	Utility - NSPCT	KR	Issued	10-2005-7008424	Nov 19, 2003		10-1092830	Dec 5, 2011
348	PA-079.02389-US-A	PROCEDURE FOR SHUTTING DOWN A FUEL CELL SYSTEM USING AIR PURGE	Utility - CIP	US	Issued	10/305,300	Nov 26, 2002		6,858,336	Feb 22, 2005
349	PA-079.02391-US	METHOD AND APPARATUS FOR PURGING A FUEL CELL SYSTEM WITH COOLANT	Utility - ORG	US	Issued	09/625,948	Jul 26, 2000		6,391,485	May 21, 2002
350	PA-079.02393-US	INTERDIGITATED ENTHALPY EXCHANGE DEVICE FOR A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	09/627,989	Jul 28, 2000		6,416,892	Jul 9, 2002
351	PA-079.02395-JP	DIRECT ANTIFREEZE COOLED FUEL CELL POWER PLANT SYSTEM	Utility - NSPCT	JP	Pending	2001-547685	Dec 14, 2000			
352	PA-079.02398-US	FUEL CELL HAVING A CORROSION RESISTANT AND PROTECTED CATHODE CATALYST LAYER	Utility - ORG	US	Issued	10/331,421	Dec 30, 2002		6,855,453	Feb 15, 2005
353	PA-079.02399-US	REDUCING FUEL CELL CATHODE POTENTIAL DURING STARTUP AND SHUTDOWN	Utility - ORG	US	Issued	10/282,311	Oct 28, 2002		6,913,845	Jul 5, 2005
354	PA-079.02405-DE	PROCEDURE FOR STARTING UP A FUEL CELL SYSTEM USING A FUEL PURGE	Utility - NSPCT	DE	Pending	101 97 086.2	Dec 13, 2001			
355	PA-079.02405-JP	PROCEDURE FOR STARTING UP A FUEL CELL SYSTEM USING A FUEL PURGE	Utility - NSPCT	JP	Issued	2002-558351	Dec 13, 2001	P-4357836	4357836	Aug 14, 2009
356	PA-079.02405-US-A	PROCEDURE FOR STARTING UP A FUEL CELL SYSTEM USING A FUEL PURGE	Utility - CIP	US	Issued	10/305,301	Nov 26, 2002		6,887,599	May 3, 2005
357	PA-079.02405-US-B	PROCEDURE FOR STARTING UP A FUEL CELL SYSTEM USING A FUEL PURGE	Utility - DIV	US	Issued	11/073,207	Mar 5, 2005	US 2005/0147855 A1	7,410,712	Aug 12, 2008
358	PA-079.02414-DE	PROCEDURE FOR STARTING UP A FUEL CELL SYSTEM HAVING AN ANODE EXHAUST RECYCLE LOOP	Utility - NSPCT	DE	Issued	102 97 626.0	Jan 4, 2002		10297626	Apr 18, 2013
359	PA-079.02414-JP	PROCEDURE FOR STARTING UP A FUEL CELL SYSTEM HAVING AN ANODE EXHAUST RECYCLE LOOP	Utility - NSPCT	JP	Issued	2003-561024	Jan 4, 2002	4137796	4,137,796	Jun 13, 2008
360	PA-079.02414-US-B	PROCEDURE FOR STARTING UP A FUEL CELL SYSTEM HAVING AN ANODE EXHAUST RECYCLE LOOP	Utility - CON	US	Issued	11/231,285	Sep 20, 2005	US-2006-0093879-A1	7,250,229	Jul 31, 2007
361	PA-079.02419-US-A	MAXIMIZING PEM FUEL CELL POWER PLANT SYSTEM EFFICIENCY AT OPTIMUM SYSTEM PRESSURE	Utility - CON	US	Issued	10/754,298	Jan 9, 2004		7,381,491	Jun 3, 2008
362	PA-079.02423-CN	METHOD FOR INCREASING THE OPERATIONAL EFFICIENCY OF A FUEL CELL POWER PLANT	Utility - NSPCT	CN	Issued	018182186.6	Oct 23, 2001	CN1471738A	ZL01818218.6	Nov 22, 2006
363	PA-079.02423-IN	METHOD FOR INCREASING THE OPERATIONAL EFFICIENCY OF A FUEL CELL POWER PLANT	Utility - NSPCT	IN	Issued	2003/00581	Oct 23, 2001	20100203235420	242378	Aug 24, 2010
364	PA-079.02423-JP	METHOD FOR INCREASING THE OPERATIONAL EFFICIENCY OF A FUEL CELL POWER PLANT	Utility - NSPCT	JP	Issued	2002-540230	Oct 23, 2001	P4350944	4350944	Jul 31, 2009
365	PA-079.02423-KR	METHOD FOR INCREASING THE OPERATIONAL EFFICIENCY OF A FUEL CELL POWER PLANT	Utility - NSPCT	KR	Issued	10-2003-7005415	Oct 23, 2001	2004-2844	10-0803895	Feb 5, 2008
366	PA-079.02423-US	METHOD FOR INCREASING THE OPERATIONAL EFFICIENCY OF A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	09/704,891	Nov 2, 2000		6,569,549	May 27, 2003
367	PA-079.02424-DE	HIGH FUEL UTILIZATION IN A FUEL CELL	Utility - NSPCT	DE	Pending	102 96 380.0	Feb 11, 2002			
368	PA-079.02424-JP	HIGH FUEL UTILIZATION IN A FUEL CELL	Utility - NSPCT	JP	Issued	2002-568448	Feb 11, 2002		4538190	Jun 25, 2010

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369	PA-079.02424-US	HIGH FUEL UTILIZATION IN A FUEL CELL	Utility - ORG	US	Issued	09/793,175	Feb 26, 2001		6,558,827	May 6, 2003
370	PA-079.02428-US	HYBRID FUEL CELL REACTANT FLOW FIELDS	Utility - ORG	US	Issued	09/751,591	Dec 29, 2000		6,472,095	Oct 29, 2002
371	PA-079.02431-US	FUEL CELL WITH AN ELECTROLYTE DRY-OUT BARRIER	Utility - ORG	US	Issued	09/731,307	Dec 6, 2000		6,521,367	Feb 18, 2003
372	PA-079.02434-US	VACUUM OXIDANT PEM FUEL CELL	Utility - ORG	US	Issued	09/741,279	Dec 19, 2000		6,455,183	Sep 24, 2002
373	PA-079.02438-US	CATHODE SATURATION ARRANGEMENT FOR FUEL CELL POWER PLANT	Utility - ORG	US	Issued	10/723,081	Nov 26, 2003	US-2010-0279190-A1	7,014,933	Mar 21, 2006
374	PA-079.02445-DE	PROCEDURE FOR SHUTTING DOWN A FUEL CELL SYSTEM HAVING AN ANODE EXHAUST RECYCLE LOOP	Utility - NSPCT	DE	Issued	102 95 887.4	Jan 8, 2002		10295887	Mar 1, 2012
375	PA-079.02445-JP	PROCEDURE FOR SHUTTING DOWN A FUEL CELL SYSTEM HAVING AN ANODE EXHAUST RECYCLE LOOP	Utility - NSPCT	JP	Issued	2002-560222	Jan 8, 2002	4263912	4263912	Feb 20, 2009
376	PA-079.02445-US	PROCEDURE FOR SHUTTING DOWN A FUEL CELL SYSTEM HAVING AN ANODE EXHAUST RECYCLE LOOP	Utility - ORG	US	Issued	09/770,042	Jan 25, 2001		6,514,635	Feb 4, 2003
377	PA-079.02454-JP	PREDICTIVE CONTROL ARRANGEMENT FOR LOAD-FOLLOWING FUEL CELL-POWERED APPLICATIONS	Utility - NSPCT	JP	Issued	2002-550331	Nov 13, 2001	4445199	4445199	Jan 22, 2010
378	PA-079.02454-US	PREDICTIVE CONTROL ARRANGEMENT FOR LOAD-FOLLOWING FUEL CELL-POWERED APPLICATIONS	Utility - ORG	US	Issued	09/736,098	Dec 13, 2000		6,393,354	May 21, 2002
379	PA-079.02458-DE	FUEL CELL STACK ASSEMBLY WITH EDGE SEAL	Utility - NSPCT	DE	Pending	101 96 645.8	Sep 14, 2001			
380	PA-079.02458-JP	FUEL CELL STACK ASSEMBLY WITH EDGE SEAL	Utility - NSPCT	JP	Issued	2002-528859	Sep 14, 2001		5238117	Jul 17, 2013
381	PA-079.02458-US	FUEL CELL STACK ASSEMBLY WITH EDGE SEAL	Utility - CIP	US	Issued	09/736,105	Dec 13, 2000		6,399,234	Jun 4, 2002
382	PA-079.02467-US	STEAM GENERATOR FOR A PEM FUEL CELL POWR PLANT	Utility - ORG	US	Issued	10/078,086	Feb 19, 2002		6,958,195B2	Oct 25, 2005
383	PA-079.02480-DE	FUEL CELL REACTANT FLOW FIELDS THAT MAXIMIZE PLANFORM UTILIZATION	Utility - EPPAT	DE	Issued	05 724 709.0	Mar 4, 2005		602005029199.7	Jul 27, 2011
384	PA-079.02480-IN	FUEL CELL REACTANT FLOW FIELDS THAT MAXIMIZE PLANFORM UTILIZATION	Utility - NSPCT	IN	Pending	4949/DELNP/2006	Mar 4, 2005			
385	PA-079.02480-JP	FUEL CELL REACTANT FLOW FIELDS THAT MAXIMIZE PLANFORM UTILIZATION	Utility - NSPCT	JP	Issued	2007-506190	Mar 4, 2005		4887285	Dec 16, 2011
386	PA-079.02480-KR	FUEL CELL REACTANT FLOW FIELDS THAT MAXIMIZE PLANFORM UTILIZATION	Utility - NSPCT	KR	Issued	10-2006-7020601	Mar 4, 2005		10-1161041	Jun 22, 2012
387	PA-079.02480-US	FUEL CELL REACTANT FLOW FIELDS THAT MAXIMIZE PLANFORM UTILIZATION	Utility - ORG	US	Pending	10/816,403	Apr 1, 2004	US-2005-0221154-A1		
388	PA-079.02481-US	VARIABLE STOCHTOMETRY FUEL CELL	Utility - ORG	US	Issued	09/778,513	Feb 7, 2001		6,586,123	Jul 1, 2003
389	PA-079.02485-US	FINE PORE ENTHALPY EXCHANGE BARRIER FOR A FUEL CELL POWER PLANT	Utility - CIP	US	Issued	09/740,590	Dec 19, 2000		6,475,652	Nov 5, 2002
390	PA-079.02487-US	PROCEDURE FOR PURGING A FUEL CELL SYSTEM WITH INERT GAS MADE FROM ORGANIC FUEL	Utility - ORG	US	Issued	09/975,601	Oct 11, 2001		6,645,650	Nov 11, 2003
391	PA-079.02494-JP	FIXED IDC OPERATION OF FUEL CELL POWER PLANT	Utility - NSPCT	JP	Issued	2006-508827	Feb 25, 2004		4796957	Aug 5, 2011
392	PA-079.02494-US	FIXED IDC OPERATION OF FUEL CELL POWER PLANT	Utility - ORG	US	Issued	10/373,619	Feb 25, 2003		7,041,403	May 9, 2006
393	PA-079.02494-US-A	FIXED IDC OPERATION OF FUEL CELL POWER PLANT	Utility - CIP	US	Issued	10/558,982	Feb 25, 2004	US-2007-0072015-A1	7,799,476	Sep 21, 2010
394	PA-079.02497-US-A	FREEZE TOLERANT FUEL CELL POWER PLANT	Utility - CIP	US	Issued	10/146,606	May 15, 2002		6,562,503	May 13, 2003
395	PA-079.02499-CN	SHUT-DOWN PROCEDURE FOR HYDROGEN-AIR FUEL CELL SYSTEM	Utility - NSPCT	CN	Issued	028133218	May 14, 2002	CN 1522476A	ZL 02813321.8	Feb 14, 2007
396	PA-079.02499-DE	SHUT-DOWN PROCEDURE FOR HYDROGEN-AIR FUEL CELL SYSTEM	Utility - EPPAT	DE	Issued	027369420	May 14, 2002	1 402 588	602 36 867.7-08	Jun 30, 2010
397	PA-079.02499-IN	SHUT-DOWN PROCEDURE FOR HYDROGEN-AIR FUEL CELL SYSTEM	Utility - NSPCT	IN	Issued	02030/DELNP/2003	May 14, 2002		233518	Mar 30, 2009
398	PA-079.02499-JP	SHUT-DOWN PROCEDURE FOR HYDROGEN-AIR FUEL CELL SYSTEM	Utility - NSPCT	JP	Issued	2003-502908	May 14, 2002	4601952	4601952	Oct 8, 2010

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399	PA-079.02499-KR	SHUT-DOWN PROCEDURE FOR HYDROGEN-AIR FUEL CELL SYSTEM	Utility - NSPCT	KR	Issued	10-2003-7015509	May 14, 2002		10-0852337	Aug 7, 2008
400	PA-079.02499-US	SHUT-DOWN PROCEDURE FOR HYDROGEN-AIR FUEL CELL SYSTEM	Utility - ORG	US	Issued	09/872,957	Jun 1, 2001		6,635,370	Oct 21, 2003
401	PA-079.02500-US	FUEL CELL STACK HAVING AN IMPROVED PRESSURE PLATE AND CURRENT COLLECTOR	Utility - ORG	US	Issued	10/141,612	May 8, 2002		6,764,786	Jul 20, 2004
402	PA-079.02503-DE	FUEL CELL HYBRID FLOW FIELD HUMIDIFICATION ZONE	Utility - NSPCT	DE	Pending	101 97 106.0	Dec 14, 2001			
403	PA-079.02503-JP	FUEL CELL HYBRID FLOW FIELD HUMIDIFICATION ZONE	Utility - NSPCT	JP	Issued	2002554895	Dec 14, 2001	P3911479	3911479	Feb 2, 2007
404	PA-079.02503-US	FUEL CELL HYBRID FLOW FIELD HUMIDIFICATION ZONE	Utility - ORG	US	Issued	09/751,600	Dec 29, 2000		6,485,857	Nov 26, 2002
405	PA-079.02509-US	COOLANT MIXTURE SEPARATOR ASSEMBLY FOR USE IN A POLYMER ELECTROLYTE MEMBRANE (PEM) FUEL CELL POWER PLANT	Utility - ORG	US	Issued	10/171,854	Jun 17, 2002		7,118,819	Oct 10, 2006
406	PA-079.02509-US-A	COOLANT MIXTURE SEPARATOR ASSEMBLY FOR USE IN A POLYMER ELECTROLYTE MEMBRANE (PEM) FUEL CELL POWER PLANT	Utility - DIV	US	Issued	11/254,203	Oct 20, 2005	US-2006-0035127-A1	7,670,702	Mar 2, 2010
407	PA-079.02509-US-B	COOLANT MIXTURE SEPARATOR ASSEMBLY FOR USE IN A POLYMER ELECTROLYTE MEMBRANE (PEM) FUEL CELL POWER PLANT	Utility - DIV	US	Issued	11/254,202	Oct 20, 2005	US-2006-0083969-A1	7,172,647	Feb 6, 2007
408	PA-079.02531-US	PASSIVE WATER MANAGEMENT FUEL CELL	Utility - ORG	US	Issued	10/036,181	Dec 28, 2001		6,794,077	Sep 21, 2004
409	PA-079.02536-KR	METHOD AND APPARATUS FOR PREVENTING WATER IN FUEL CELL POWER PLANTS FROM FREEZING DURING STORAGE	Utility - NSPCT	KR	Abandoned	10-2004-7010704	Jan 7, 2003		10-0943626	Feb 12, 2010
410	PA-079.02536-US	METHOD AND APPARATUS FOR PREVENTING WATER IN FUEL CELL POWER PLANTS FROM FREEZING DURING STORAGE	Utility - ORG	US	Issued	10/043,791	Jan 11, 2002		6,797,421	Sep 28, 2004
411	PA-079.02537-US	CONVEX FUEL MANIFOLD PROVIDING UNIFORM PRESSURE SEAL TO FUEL CELL STACK	Utility - ORG	US	Issued	09/838,877	Apr 20, 2001		6,495,280	Dec 17, 2002
412	PA-079.02541-JP	MANIFOLD ATTACHMENT SYSTEM FOR A FUEL CELL STACK	Utility - NSPCT	JP	Issued	2004-502379	Jul 18, 2002		4700339	Mar 11, 2011
413	PA-079.02541-US	MANIFOLD ATTACHMENT SYSTEM FOR A FUEL CELL STACK	Utility - ORG	US	Issued	09/920,914	Aug 2, 2001		6,696,193	Feb 24, 2004
414	PA-079.02560-US	FUEL CELL WITH FOLDED PROTON EXCHANGE MEMBRANE FORMING DIFFUSION LAYER SEAL	Utility - ORG	US	Issued	10/021,717	Dec 12, 2001		6,667,125	Dec 23, 2003
415	PA-079.02565-US	FUEL CELL POWER PLANT USED AS REFORMATE GENERATOR	Utility - ORG	US	Issued	10/058,665	Jan 28, 2002		6,989,208	Jan 24, 2006
416	PA-079.02565-US-A	FUEL CELL POWER PLANT USED AS A REFORMATE GENERATOR	Utility - CON	US	Issued	11/269,031	Nov 8, 2005	US-2006-0063047-A1	7,485,380	Feb 3, 2009
417	PA-079.02565-US-B	FUEL CELL POWER PLANT USED AS A REFORMATE GENERATOR	Utility - CON	US	Allowed	12/340,781	Dec 22, 2008	US-2009-0098422-A1		
418	PA-079.02567-US-A	UNITIZED FUEL CELL ELECTRODE GASKET ASSEMBLY	Utility - CON	US	Issued	10/930,364	Aug 30, 2004		7,201,988	Apr 10, 2007
419	PA-079.02593-EP	ELECTRIC STORAGE AUGMENTATION OF FUEL CELL SYSTEM TRANSIENT RESPONSE	Utility - NSPCT	EP	Completed	04 811 433.4	Nov 17, 2004		1692736	Oct 2, 2013
420	PA-079.02593-JP	ELECTRIC STORAGE AUGMENTATION OF FUEL CELL SYSTEM TRANSIENT RESPONSE	Utility - NSPCT	JP	Pending	2006-541375	Nov 17, 2004			
421	PA-079.02593-US	ELECTRIC STORAGE AUGMENTATION OF FUEL CELL SYSTEM TRANSIENT RESPONSE	Utility - ORG	US	Issued	10/717,089	Nov 19, 2003	US-2005-0106432-A1	7,087,329	Aug 8, 2006

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422	PA-079.02600-JP	FLUID FLOW CONTROL FOR COOL, EFFICIENT FUEL CELL OPERATION	Utility - NSPCT	JP	Issued	2003-527826	Sep 6, 2002	4443220	4443220	Jan 22, 2010
423	PA-079.02600-US	FLUID FLOW CONTROL FOR COOL, EFFICIENT FUEL CELL OPERATION	Utility - ORG	US	Issued	09/948,353	Sep 7, 2001		6,572,995	Jun 3, 2003
424	PA-079.02605-US	MOISTURE STABILIZATION FOR FUEL CELL POWER PLANT SYSTEM	Utility - ORG	US	Issued	10/723,200	Nov 26, 2003		7,037,61282	May 2, 2006
425	PA-079.02608-US	FUEL CELL PERFORMANCE RECOVERY BY CYCLIC OXIDANT STARVATION	Utility - ORG	US	Issued	10/160,384	May 30, 2002		6,841,278	Jan 11, 2005
426	PA-079.02612-US	CONFIGURATION ENABLING RAPID FUEL CELL POWER FROM SUB-FREEZING INITIAL CONDITION	Utility - ORG	US	Issued	10/057,233	Jan 25, 2002		6,773,840	Aug 10, 2004
427	PA-079.02615-DE	POROUS CARBON BODY FOR A FUEL CELL HAVING AN ELECTRONICALLY CONDUCTIVE HYDROPHILIC AGENT	Utility - NSPCT	DE	Pending	102 97 593.0	Dec 18, 2002			
428	PA-079.02615-JP	POROUS CARBON BODY FOR A FUEL CELL HAVING AN ELECTRONICALLY CONDUCTIVE HYDROPHILIC AGENT	Utility - NSPCT	JP	Issued	2003-558948	Dec 18, 2002		4916088	Feb 3, 2012
429	PA-079.02615-US	POROUS CARBON BODY FOR A FUEL CELL HAVING AN ELECTRONICALLY CONDUCTIVE HYDROPHILIC AGENT	Utility - ORG	US	Issued	10/034,884	Dec 27, 2001		6,746,982	Jun 8, 2004
430	PA-079.02622-US	INTERFACIAL AND EDGE SEALS FOR UNINITIZED ELECTRODE ASSEMBLIES OF FUEL CELL STACK ASSEMBLY	Utility - ORG	US	Issued	10/114,551	Apr 1, 2002		6,743,542	Jun 1, 2004
431	PA-079.02628-US	AIR CONDITION ASSISTED WATER RECOVERY DEVICE INTEGRATED WITH CELL STACK ASSEMBLY	Utility - ORG	US	Issued	10/102,386	Mar 18, 2002		6,716,547	Apr 6, 2004
432	PA-079.02638-US	ACTIVELY-COOLED WATER RECOVERY	Utility - ORG	US	Issued	10/095,691	Mar 12, 2002		6,777,119	Aug 17, 2004
433	PA-079.02671-US	LOW TEMPERATURE FUEL CELL POWER PLANT OPERATION	Utility - ORG	US	Issued	10/624,190	Jul 22, 2003		6,986,959	Jan 17, 2006
434	PA-079.02691-DE	START UP SYSTEM AND METHOD FOR A FUEL CELL POWER PLANT USING A CATHODE ELECTRODE FUEL PURGE	Utility - NSPCT	DE	Pending	103 94 016.2	Dec 11, 2003			
435	PA-079.02691-JP	START UP SYSTEM AND METHOD FOR A FUEL CELL POWER PLANT USING A CATHODE ELECTRODE FUEL PURGE	Utility - NSPCT	JP	Issued	2004-565404	Dec 11, 2003	4656947	4656947	Jan 7, 2011
436	PA-079.02691-US	START UP SYSTEM AND METHOD FOR A FUEL CELL POWER PLANT USING A CATHODE ELECTRODE FUEL PURGE	Utility - ORG	US	Issued	10/329,874	Dec 26, 2002		6,838,199	Jan 4, 2005
437	PA-079.02693-US	HIGH TEMPERATURE REACTANT RECYCLING FOR PEM FUEL CELL HUMIDIFICATION	Utility - ORG	US	Issued	10/285,236	Oct 31, 2002		7,067,20982	Jun 27, 2006
438	PA-079.02715-US	PERFORMANCE RECOVERY PROCESS FOR PEM FUEL CELLS	Utility - ORG	US	Issued	10/103,584	Mar 20, 2002		6,709,777	Mar 23, 2004
439	PA-079.02721-US	HIGH WATER PERMEABILITY PROTON EXCHANGE MEMBRANE	Utility - ORG	US	Issued	10/274,747	Oct 21, 2002		6,841,283	Jan 11, 2005
440	PA-079.02725-US	METHOD AND APPARATUS FOR HUMIDIFICATION CONTROL OF AN ENERGY RECOVERY DEVICE IN A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	10/723,502	Nov 26, 2003		7,118,820	Oct 10, 2006
441	PA-079.02726-DE	SYSTEM AND METHOD FOR SHUTTING DOWN A FUEL CELL POWER PLANT	Utility - NSPCT	DE	Pending	103 92 873.1	Jun 23, 2003			
442	PA-079.02726-JP	SYSTEM AND METHOD FOR SHUTTING DOWN A FUEL CELL POWER PLANT	Utility - NSPCT	JP	Issued	2004-517767	Jun 23, 2003	4643256	4643256	Dec 10, 2010
443	PA-079.02726-US	SYSTEM AND METHOD FOR SHUTTING DOWN A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	10/180,393	Jun 26, 2002		6,835,479	Dec 28, 2004

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444	PA-079.02727-US-A	CERIA-BASED MIXED-METAL OXIDE STRUCTURE, INCLUDING METHOD OF MAKING AND USE	Utility - CIP	US	Issued	10/402,808	Mar 28, 2003		7,166,263	Jan 23, 2007
445	PA-079.02727-US-B	CERIA-BASED MIXED-METAL OXIDE STRUCTURE, INCLUDING METHOD OF MAKING AND USE	Utility - DIV	US	Issued	11/605,515	Nov 28, 2006	US-2007-0093382-A1	7,612,011	Nov 3, 2009
446	PA-079.02732-JP	SYSTEM FOR DETERMINING A GAS COMPOSITION WITHIN A SHUT DOWN FUEL CELL POWER PLANT AND METHOD OF OPERATION	Utility - NSPCT	JP	Issued	2004-536614	Sep 15, 2003	4630064	4630064	Nov 19, 2010
447	PA-079.02732-US	SYSTEM FOR DETERMINING A GAS COMPOSITION WITHIN A SHUT DOWN FUEL CELL POWER PLANT AND METHOD OF OPERATION	Utility - ORG	US	Issued	10/244,495	Sep 16, 2002		7,147,945	Dec 12, 2006
448	PA-079.02734-US	FUEL CELL WITH PASSIVE WATER BALANCE	Utility - ORG	US	Issued	10/750,609	Dec 31, 2003		7,201,992	Apr 10, 2007
449	PA-079.02743-BR	A FUEL CELL SYSTEM, AND METHOD OF PROTECTING A FUEL CELL FROM FREEZING	Utility - NSPCT	BR	Pending	P10308072-2	Feb 25, 2003	200308072		
450	PA-079.02743-CN	A FUEL CELL SYSTEM, AND METHOD OF PROTECTING A FUEL CELL FROM FREEZING	Utility - NSPCT	CN	Issued	03804776.4	Feb 25, 2003		ZL 03804776.4	Mar 12, 2008
451	PA-079.02743-DE	A FUEL CELL SYSTEM, AND METHOD OF PROTECTING A FUEL CELL FROM FREEZING	Utility - EPPAT	DE	Issued	60320229.02-08	Feb 25, 2003		1,479,123	Apr 9, 2008
452	PA-079.02743-FR	A FUEL CELL SYSTEM, AND METHOD OF PROTECTING A FUEL CELL FROM FREEZING	Utility - EPPAT	FR	Issued	03721297.4	Feb 25, 2003		1479123	Apr 9, 2008
453	PA-079.02743-GB	A FUEL CELL SYSTEM, AND METHOD OF PROTECTING A FUEL CELL FROM FREEZING	Utility - EPPAT	GB	Issued	037212974	Feb 25, 2003		1,479,123	Apr 9, 2008
454	PA-079.02743-JP	A FUEL CELL SYSTEM, AND METHOD OF PROTECTING A FUEL CELL FROM FREEZING	Utility - NSPCT	JP	Issued	2003-572124	Feb 25, 2003		4178112	Aug 29, 2008
455	PA-079.02743-KR	A FUEL CELL SYSTEM, AND METHOD OF PROTECTING A FUEL CELL FROM FREEZING	Utility - NSPCT	KR	Issued	10-2004-70131	Feb 25, 2003		10-1029506	Apr 8, 2011
456	PA-079.02743-US	A FUEL CELL SYSTEM, AND METHOD OF PROTECTING A FUEL CELL FROM FREEZING	Utility - ORG	US	Issued	10/083,606	Feb 27, 2002		6,955,861	Oct 18, 2005
457	PA-079.02747-DE	PEM FUEL CELL PASSIVE WATER MANAGEMENT	Utility - NSPCT	DE	Pending	11 2004 001 104.3	Jun 17, 2004			
458	PA-079.02747-JP	PEM FUEL CELL PASSIVE WATER MANAGEMENT	Utility - NSPCT	JP	Issued	2006-517416	Jun 17, 2004	4684224	4684224	Feb 18, 2011
459	PA-079.02747-US	PEM FUEL CELL PASSIVE WATER MANAGEMENT	Utility - ORG	US	Issued	10/465,006	Jun 19, 2003		6,916,571	Jul 12, 2005
460	PA-079.02748-JP	FUEL FUEL SYSTEM WITH IMPROVED HUMIDIFICATION SYSTEM	Utility - NSPCT	JP	Issued	2004-557248	Nov 21, 2003	4624799	4624799	Nov 12, 2010
461	PA-079.02748-US	FUEL FUEL SYSTEM WITH IMPROVED HUMIDIFICATION SYSTEM	Utility - ORG	US	Issued	10/309,971	Dec 4, 2002		6,869,709	Mar 22, 2005
462	PA-079.02750-JP	SYSTEM AND METHOD FOR STARTING A FUEL CELL STACK ASSEMBLY AT SUB-FREZING TEMPERATURE	Utility - NSPCT	JP	Issued	2006507408	Mar 18, 2004	JP2006507408 A	4903557	Jan 13, 2012
463	PA-079.02750-US	SYSTEM AND METHOD FOR STARTING A FUEL CELL STACK ASSEMBLY AT SUB-FREZING TEMPERATURE	Utility - ORG	US	Issued	10/396,894	Mar 25, 2003		7,056,609	Jun 6, 2006
464	PA-079.02752-US	BATTERY-BOOSTED, RAPID STARTUP OF FROZEN FUEL CELL	Utility - ORG	US	Issued	10/137,843	May 1, 2002		6,777,115	Aug 17, 2004
465	PA-079.02760-DE	IMPROVED FUEL CELL STACK ASSEMBLY	Utility - NSPCT	DE	Pending	103 93 945.8	Nov 18, 2003			
466	PA-079.02760-JP	IMPROVED FUEL CELL STACK ASSEMBLY	Utility - NSPCT	JP	Issued	2004-565011	Nov 18, 2003		4633473	Nov 26, 2010
467	PA-079.02760-US	FUEL STACK ASSEMBLY	Utility - ORG	US	Issued	10/325,237	Dec 20, 2002		7,579,100	Aug 25, 2009
468	PA-079.02765-US	PASSIVE WATER MANAGEMENT SYSTEM FOR A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	10/612,688	Jul 2, 2003		7,063,907	Jun 20, 2006
469	PA-079.02797-US	FUEL CELL FOR MOISTURE MANAGEMENT AT GAS INLETS	Utility - NSPCT	US	Pending	13/256,290	Mar 18, 2009	20120003560		
470	PA-079.02809-DE	FUEL CELL STACK MELTING OF COOLANT WATER DURING FROZEN STARTUP	Utility - NSPCT	DE	Pending	11 2004 000 247.8	Feb 4, 2004			
471	PA-079.02809-JP	FUEL CELL STACK MELTING OF COOLANT WATER DURING FROZEN STARTUP	Utility - NSPCT	JP	Issued	2006-503358	Feb 4, 2004	4875485	4875485	Dec 2, 2011

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472	PA-079.02809-US	FUEL CELL STACK MELTING OF COOLANT WATER DURING FROZEN STARTUP	Utility - ORG	US	Issued	10/361,120	Feb 6, 2003		6,986,958	Jan 17, 2006
473	PA-079.02821-US	FUEL CELL TEMPERATURE CONTROL BY EVAPORATIVE COOLING	Utility - ORG	US	Issued	10/649,244	Aug 27, 2003		7,556,874	Jul 7, 2009
474	PA-079.02827-DE	END-CELL THERMAL DISTANCING FOR FUEL CELL SYSTEM	Utility - NSPCT	DE	Pending	103 93 148.1	Aug 12, 2003			
475	PA-079.02827-JP	END-CELL THERMAL DISTANCING FOR FUEL CELL SYSTEM	Utility - NSPCT	JP	Issued	2004-530987	Aug 12, 2003		4782419	Jul 15, 2011
476	PA-079.02827-US	END-CELL THERMAL DISTANCING FOR FUEL CELL SYSTEM	Utility - ORG	US	Issued	10/225,527	Aug 21, 2002		6,824,901	Nov 30, 2004
477	PA-079.02834-US	PEM FUEL CELL STACK ASSEMBLY WITH ISOLATED INTERNAL COOLANT MANIFOLD	Utility - ORG	US	Issued	10/694,694	Oct 27, 2003		7,067,214B2	Jun 27, 2006
478	PA-079.02844-DE	CASCADE FUEL INLET MANIFOLD FOR FUEL CELLS	Utility - NSPCT	DE	Pending	103 93 478.2	Sep 17, 2003			
479	PA-079.02844-IN	CASCADE FUEL INLET MANIFOLD FOR FUEL CELLS	Utility - NSPCT	IN	Issued	1127/DELNP/2005	Sep 17, 2003		246213	Feb 21, 2011
480	PA-079.02844-JP	CASCADE FUEL INLET MANIFOLD FOR FUEL CELLS	Utility - NSPCT	JP	Issued	2004-543338	Sep 17, 2003	4691360	4691360	Feb 25, 2011
481	PA-079.02844-KR	CASCADE FUEL INLET MANIFOLD FOR FUEL CELLS	Utility - NSPCT	KR	Issued	10-2005-7005135	Sep 17, 2003		10-1025386	Mar 21, 2011
482	PA-079.02844-KR-AA	CASCADE FUEL INLET MANIFOLD FOR FUEL CELLS	Utility - DIV	KR	Issued	10-2010-7022218	Oct 5, 2010		10-1167796	Jul 16, 2012
483	PA-079.02844-US-A	CASCADE FUEL INLET MANIFOLD FOR FUEL CELLS	Utility - CON	US	Issued	10/960,843	Oct 7, 2004		6,924,056B2	Aug 2, 2005
484	PA-079.02847-US	SHUTDOWN PROCEDURE TO IMPROVE STARTUP AT SUB-FREEZING TEMPERATURES	Utility - ORG	US	Issued	10/186,501	Jun 28, 2002		6,864,000	Mar 8, 2005
485	PA-079.02852-US-A	INITIATING OPERATION OF AN ELECTRIC VEHICLE OR OTHER LOAD POWERED BY A FUEL CELL AT SUB-FREEZING TEMPERATURE	Utility - CIP	US	Issued	10/390,439	Mar 17, 2003		6,673,481	Jan 6, 2004
486	PA-079.02911-JP	MEMBRANE ELECTRODE ASSEMBLIES WITH HYDROGEN PEROXIDE DECOMPOSITION CATALYST	Utility - NSPCT	JP	Issued	2004-534309	Aug 21, 2003		4679148	Feb 10, 2011
487	PA-079.02911-KR	MEMBRANE ELECTRODE ASSEMBLIES WITH HYDROGEN PEROXIDE DECOMPOSITION CATALYST	Utility - NSPCT	KR	Issued	10-2005-7003682	Aug 21, 2003		10-1081712	Nov 2, 2011
488	PA-079.02911-US	MEMBRANE ELECTRODE ASSEMBLIES WITH HYDROGEN PEROXIDE DECOMPOSITION CATALYST	Utility - ORG	US	Issued	10/235,074	Sep 4, 2002		7,112,386	Sep 26, 2006
489	PA-079.02911-US-AA	MEMBRANE ELECTRODE ASSEMBLIES WITH HYDROGEN PEROXIDE DECOMPOSITION CATALYST	Utility - NSPCT	US	Pending	12/513,701	Dec 28, 2004	US-2011-0244340-A1		
490	PA-079.02911-US-AB	Protective and Precipitation Layers for PEM Fuel Cell	Utility - NSPCT	US	Pending	12/863,159	Jan 3, 2008	US-2011-0020727-A1		
491	PA-079.02912-US	FUEL CELL STACK INCLUDING HYDROGEN PUMPING FUEL CELLS	Utility - ORG	US	Issued	10/744,880	Dec 23, 2003	US-2005-0136313-A1	7,449,260	Nov 11, 2008
492	PA-079.02921-US	VACUUM ASSISTED STARTUP OF A FUEL CELL AT SUB-FREEZING TEMPERATURE	Utility - ORG	US	Issued	10/429,352	May 5, 2003		7,112,379	Sep 26, 2006
493	PA-079.02929-US	SINGLE VALVE FUEL CELL STACK GAS FLOW AND CONTAINMENT	Utility - ORG	US	Issued	10/685,758	Oct 15, 2003		6,959,730	Nov 1, 2005
494	PA-079.02930-JP	FUEL CELL POWER PLANT HAVING A FUEL CONCENTRATION SENSOR CELL	Utility - NSPCT	JP	Issued	2006-509360	Mar 26, 2004	4686449	4686449	Feb 18, 2011
495	PA-079.02930-US	FUEL CELL POWER PLANT HAVING A FUEL CONCENTRATION SENSOR CELL	Utility - ORG	US	Issued	10/406,453	Apr 3, 2003		6,977,121B2	Dec 20, 2005
496	PA-079.02931-US	FUEL CELL MANIFOLD SEAL WITH RIGID INNER LAYER	Utility - ORG	US	Issued	10/619,406	Jul 15, 2003		7,112,384	Sep 26, 2006
497	PA-079.02947-DE	DECONTAMINATION PROCEDURE FOR A FUEL CELL POWER PLANT	Utility - NSPCT	DE	Pending	11 2005 003 296.5	Dec 20, 2005			
498	PA-079.02947-JP	DECONTAMINATION PROCEDURE FOR A FUEL CELL POWER PLANT	Utility - NSPCT	JP	Issued	2007-548438	Dec 20, 2005	2008-546130	5043679	Jul 20, 2012

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499	PA-079.02947-KR	DECONTAMINATION PROCEDURE FOR A FUEL CELL POWER PLANT	Utility - NSPCT	KR	Issued	10-2007-7016020	Dec 20, 2005		10-1169828	Jul 24, 2012
500	PA-079.02947-US	DECONTAMINATION PROCEDURE FOR A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	11/023,148	Dec 27, 2004		7,442,453	Oct 28, 2008
501	PA-079.02950-US	PERMEABLE INLET FUEL GAS DISTRIBUTOR FOR FUEL CELLS	Utility - ORG	US	Issued	10/736,945	Dec 15, 2003	US-2005-012999-A1	7,875,397	Jan 25, 2011
502	PA-079.02951-US-A	SMALL VOLUME, FUEL CELL INLET FUEL GAS DISTRIBUTOR HAVING LOW PRESSURE DROP	Utility - CON	US	Issued	11/506,686	Aug 18, 2006	US-2006-0280995-A1	8,076,039	Dec 13, 2011
503	PA-079.02952-CN	HYDROGEN PASSIVATION SHUT DOWN SYSTEM FOR A FUEL CELL POWER PLANT	Utility - NSPCT	CN	Issued	20048002918 0.00	Jul 29, 2004	1864292	ZL200480029180.0	Apr 22, 2009
792	PA-079.02952-DE	HYDROGEN PASSIVATION SHUT DOWN SYSTEM FOR A FUEL CELL POWER PLANT	Utility - EPPAT	DE	Issued	04 779 682.6	Jul 29, 2004		602004040141.2	Nov 21, 2012
504	PA-079.02952-EP	HYDROGEN PASSIVATION SHUT DOWN SYSTEM FOR A FUEL CELL POWER PLANT	Utility - NSPCT	EP	Completed	04 779 682.6	Jul 29, 2004		1665427	Nov 21, 2012
505	PA-079.02952-IN	HYDROGEN PASSIVATION SHUT DOWN SYSTEM FOR A FUEL CELL POWER PLANT	Utility - NSPCT	IN	Pending	1123/DELNP/2 006	Jul 29, 2004			
506	PA-079.02952-KR	HYDROGEN PASSIVATION SHUT DOWN SYSTEM FOR A FUEL CELL POWER PLANT	Utility - NSPCT	KR	Issued	10-2006-7002506	Jul 29, 2004		10-1129937	Mar 16, 2012
507	PA-079.02952-US	HYDROGEN PASSIVATION SHUT DOWN SYSTEM FOR A FUEL CELL POWER PLANT	Utility - ORG	US	Issued	10/635,779	Aug 6, 2003		6,984,464	Jan 10, 2006
508	PA-079.02952-US-B	HYDROGEN PASSIVATION SHUT DOWN SYSTEM FOR A FUEL CELL POWER PLANT	Utility - DIV	US	Issued	11/289,196	Nov 29, 2005		7,141,324	Nov 28, 2008
509	PA-079.02952-US-D	HYDROGEN PASSIVATION SHUT DOWN SYSTEM FOR A FUEL CELL POWER PLANT	Utility - CIP	US	Issued	12/386,950	Apr 24, 2009	US-2009-0214906-A1	8,277,991	Oct 2, 2012
510	PA-079.02952-US-E	HYDROGEN PASSIVATION SHUT DOWN SYSTEM FOR A FUEL CELL POWER PLANT	Utility - CIP	US	Pending	12/386,953	Apr 24, 2009	US-2009-0220831-A1		
511	PA-079.02952-US-F	HYDROGEN PASSIVATION SHUT DOWN SYSTEM FOR A FUEL CELL POWER PLANT	Utility - CIP	US	Issued	12/387,515	May 4, 2009	US-2009-0220832-A1	8,142,950	Mar 27, 2012
512	PA-079.02952-US-G	HYDROGEN PASSIVATION SHUT DOWN SYSTEM FOR A FUEL CELL POWER PLANT	Utility - DIV	US	Issued	12/880,493	Sep 13, 2010	US-2011-0003222-A1	7,855,020	Dec 21, 2010
513	PA-079.02960-US	TURBOCOMPRESSOR IMPELLING FUEL RECYCLE IN FUEL CELL POWER PLANT	Utility - ORG	US	Issued	10/804,342	Mar 19, 2004	US-2008-0311454-A1	7,465,510	Dec 16, 2008
514	PA-079.02975-DE	FUEL CELL WITH RANDOMLY-DISPERSED CARBON FIBERS IN A BACKING LAYER	Utility - NSPCT	DE	Pending	11 2004 002 566.4	Dec 21, 2004			
515	PA-079.02975-JP	FUEL CELL WITH RANDOMLY-DISPERSED CARBON FIBERS IN A BACKING LAYER	Utility - NSPCT	JP	Issued	2006-547352	Dec 21, 2004		4838729	Oct 7, 2011
516	PA-079.02975-US-A	FUEL CELL WITH RANDOMLY-DISPERSED CARBON FIBERS IN A BACKING LAYER	Utility - DIV	US	Issued	11/638,147	Dec 13, 2006	US-2007-0111882-A1	7,931,996	Apr 26, 2011
517	PA-079.03008-US	FUEL CELL ENCLOSURE	Design - ORG	US	Issued	29/171,076	Nov 15, 2002		0492,650	Jul 6, 2004
518	PA-079.03024-CN	FUEL CELL VOLTAGE CONTROL	Utility - NSPCT	CN	Issued	20048003639 3.6	Oct 5, 2004	1890833	ZL200480036393.6	Jun 26, 2009
519	PA-079.03024-DE	FUEL CELL VOLTAGE CONTROL	Utility - NSPCT	DE	Pending	11200400190 4.4	Oct 5, 2004			
520	PA-079.03024-IN	FUEL CELL VOLTAGE CONTROL	Utility - NSPCT	IN	Pending	2489/DELNP/2 006	Oct 5, 2004			
521	PA-079.03024-JP	FUEL CELL VOLTAGE CONTROL	Utility - NSPCT	JP	Pending	2006534269	Oct 5, 2004			
522	PA-079.03024-KR	FUEL CELL VOLTAGE CONTROL	Utility - NSPCT	KR	Issued	10-2006-7007672	Oct 5, 2004		10-1119379	Feb 15, 2012
523	PA-079.03024-US	FUEL CELL VOLTAGE CONTROL	Utility - ORG	US	Issued	10/681,493	Oct 7, 2003		7,041,405	May 9, 2006
524	PA-079.03042-US	CATHODE-TO-CATHODE FUEL CELL STACKS	Utility - ORG	US	Issued	10/950,714	Sep 27, 2004	US-2006-0068235-A1	7,081,313	Jul 25, 2006
525	PA-079.03045-US	FUEL AND AIR FLOW CONTROL IN A MULTI-STACK FUEL CELL POWER PLANT	Utility - ORG	US	Issued	10/666,566	Sep 22, 2003		7,108,929	Sep 19, 2006
526	PA-079.03046-US	DC CURRENT CALCULATION FOR FUEL CELL CONTROL	Utility - ORG	US	Issued	10/976,486	Oct 29, 2004	US-2006-0093877-A1	7,617,062	Nov 10, 2009
527	PA-079.03053-US	METHOD OF OPERATING A FUEL CELL SYSTEM UNDER FREEZING CONDITIONS	Utility - ORG	US	Issued	10/656,529	Sep 5, 2003		7,049,018B2	May 23, 2006
528	PA-079.03064-US	PERFORMANCE ENHANCING BREAK-IN PROCEDURE FOR PEM FUEL CELL	Utility - ORG	US	Issued	10/702,181	Nov 5, 2003		7,078,118	Jul 18, 2006

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529	PA-079.03079-CN	EXTENDED CATALYZED LAYER FOR MINIMIZING CROSS-OVER OXYGEN AND CONSUMING PEROXIDE	Utility - NSPCT	CN	Issued	200580006580.4	Feb 15, 2005	101015078	ZL200580006580.4	Jun 8, 2011
530	PA-079.03079-KR	EXTENDED CATALYZED LAYER FOR MINIMIZING CROSS-OVER OXYGEN AND CONSUMING PEROXIDE	Utility - NSPCT	KR	Issued	10-2006-7016702	Feb 15, 2005		10-1196076	Oct 24, 2012
531	PA-079.03079-US	EXTENDED CATALYZED LAYER FOR MINIMIZING CROSS-OVER OXYGEN AND CONSUMING PEROXIDE	Utility - ORG	US	Issued	10/795,181	Mar 4, 2004	US-2005-0196661-A1	7,507,494	Mar 24, 2009
532	PA-079.03088-KR	DUAL PUMP FUEL CELL TEMPERATURE MANAGEMENT SYSTEM	Utility - NSPCT	KR	Abandoned	10-2007-7013532	Nov 30, 2005			
533	PA-079.03088-US	DUAL PUMP FUEL CELL TEMPERATURE MANAGEMENT SYSTEM	Utility - ORG	US	Issued	11/016,260	Dec 16, 2004	US-2006-0134481-A1	7,128,992	Oct 31, 2006
534	PA-079.03099-US-A	START UP OF CASCADED FUEL CELL STACK	Utility - CON	US	Issued	11/480,123	Jun 30, 2006	US 2006-0246326-A1	7,527,886	May 5, 2009
535	PA-079.03136-US	FUEL AND AIR FLOW CONTROL IN A MULTI-STACK FEUL CELL POWER PLANT	Utility - ORG	US	Issued	10/981,183	Nov 5, 2004	US-2006-0099464-A1	7,399,547	Jul 15, 2008
536	PA-079.03139-US	FUEL CELL SYSTEM HAVING INLET FUEL TO MORE THAN ONE AND/OR RECYCLE TO LESS THAN ALL OF THE FUEL FIELDS	Utility - ORG	US	Issued	10/765,735	Jan 27, 2004	US-2005-0164069-A1	7,291,416	Nov 6, 2007
537	PA-079.03140-US	METHODS FOR PREPARING MEMBRANES AND MEMBRANE ELECTRODE ASSEMBLIES WITH HYDROGEN PEROXIDE DECOMPOSITION CATALYST	Utility - ORG	US	Issued	10/698,659	Oct 31, 2003	+005-0095355-A1	8,057,847	Nov 15, 2011
538	PA-079.03144-JP	FUEL CELL STACK HAVING AN IMPROVED CURRENT COLLECTOR AND INSULATOR	Utility - NSPCT	JP	Issued	2006-535614	Oct 12, 2004	4739220	4739220	May 13, 2011
539	PA-079.03151-JP	REDUCING PEM FUEL CELL HARD FREEZE CYCLES	Utility - NSPCT	JP	Issued	2006-535612	Oct 12, 2004	4750709	4750709	May 27, 2011
540	PA-079.03151-US	REDUCING PEM FUEL CELL HARD FREEZE CYCLES	Utility - ORG	US	Issued	10/687,010	Oct 16, 2003		7,108,937	Sep 19, 2006
541	PA-079.03183-US	MEA SEAL STRUCTURE CONTAINING CATALYZED LAYER	Utility - NSPCT	US	Pending	11/722,862	Dec 28, 2004	US-2008-0096090-A1		
542	PA-079.03226-US	STORING WATER IN SUBSTRATES FOR FROZEN, BOOT-STRAP START OF FUEL CELLS	Utility - ORG	US	Issued	10/763,793	Jan 22, 2004	US-2005-0164049-A1	7,087,330	Aug 8, 2006
543	PA-079.03239-JP	EASILY ISOLATED, OVERSIZE FUEL CELL STACK COOLER PLATES	Utility - NSPCT	JP	Issued	2006-536674	Oct 14, 2004	4734253	4734253	Apr 28, 2011
544	PA-079.03239-US	EASILY ISOLATED, OVERSIZE FUEL CELL STACK COOLER PLATES	Utility - ORG	US	Issued	10/691,793	Oct 23, 2003		7,135,247	Nov 14, 2006
545	PA-079.03240-DE	STORAGE OF FUEL CELL ENERGY DURING STARTUP AND SHUTDOWN	Utility - NSPCT	DE	Pending	11 2004 001 762.9	Sep 22, 2004			
546	PA-079.03240-US	STORAGE OF FUEL CELL ENERGY DURING STARTUP AND SHUTDOWN	Utility - ORG	US	Issued	10/669,273	Sep 23, 2003	US-2005-0064258-A1	6,991,864	Jan 31, 2006
547	PA-079.03240-US-A	STORAGE OF FUEL CELL ENERGY DURING STARTUP AND SHUTDOWN OR OTHER POWER TRANSITIONS	Utility - CON	US	Issued	11/274,240	Nov 14, 2005	US-2006-0068249-A1	7,790,303	Sep 7, 2010
548	PA-079.03240-US-AB	STORAGE OF FUEL CELL ENERGY DURING STARTUP AND SHUTDOWN OR OTHER POWER TRANSITIONS	Utility - CON	US	Issued	12/804,220	Jul 16, 2010	US-2010-0291449-A1	7,955,746	Jun 7, 2011
549	PA-079.03272-US	PURGING WATER WITH REACTANT AIR PUMP POWERED BY OPERATIONAL FUEL CELL SYSTEM DURING SHUTDOWN	Utility - ORG	US	Issued	10/996,512	Nov 24, 2004	US-2006-0110641-A1	7,282,287	Oct 16, 2007
550	PA-079.03277-US	CATALYTIC COMBUSTORS KEEPING CONTAINED MEDIUM WARM IN RESPONSE TO HYDROSTATIC VALVE	Utility - ORG	US	Issued	11/027,333	Dec 29, 2004	US-2006-0154190-A1	7,410,619	Aug 12, 2008
551	PA-079.03277-US-AA	CATALYTIC COMBUSTORS KEEPING CONTAINED MEDIUM WARM IN RESPONSE TO HYDROSTATIC VALVE	Utility - NSPCT	US	Issued	11/794,599	Oct 31, 2005		7,771,663	Aug 10, 2010

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552	PA-079.03303-US	MANAGING WATER AND AUXILIARY POWER IN FUEL CELL POWER PLANT BELOW FREEZING TEMPERATURES	Utility - ORG	US	Issued	10/734,835	Dec 12, 2003	US-2005-0129991-A1	7,229,711	Jun 12, 2007
553	PA-079.03325-US	FUEL CELL MINIMUM FUEL RECYCLE WITH MAXIMUM FUEL UTILIZATION	Utility - ORG	US	Issued	10/838,816	May 4, 2004	US-2005-0249990-A1	7,732,073	Jun 8, 2010
554	PA-079.03342-US	FUEL CELL MANIFOLD CABLE END CLAMP	Utility - ORG	US	Issued	10/802,026	Mar 16, 2004	US-2005-0208362-A1	7,241,526	Jul 10, 2007
555	PA-079.03342-US-AA	FUEL CELL COVER PLATE TIE-DOWN	Utility - ORG	US	Issued	11/880,505	Jul 23, 2007	US-2009-0029232-A1	7,713,648	May 11, 2010
556	PA-079.03345-EP	FUEL CELL FLOW FIELD CHANNEL WITH PARTIALLY CLOSED END	Utility - NSPCT	EP	Pending	05858766.8	Dec 28, 2005	1977463		
764	PA-079.03345-EP-AA	FUEL CELL FLOW FIELD CHANNEL WITH PARTIALLY CLOSED END	Utility - DIV	EP	Pending	13160201.3	Dec 28, 2005	2608301		
557	PA-079.03345-JP	FUEL CELL FLOW FIELD CHANNEL WITH PARTIALLY CLOSED END	Utility - NSPCT	JP	Issued	2008-548489	Dec 28, 2005		5061121	Aug 10, 2012
558	PA-079.03345-KR	FUEL CELL FLOW FIELD CHANNEL WITH PARTIALLY CLOSED END	Utility - NSPCT	KR	Issued	10-2008-7014392	Dec 28, 2005		10-1022111	Mar 7, 2011
559	PA-079.03345-US	FUEL CELL FLOW FIELD CHANNEL WITH PARTIALLY CLOSED END	Utility - NSPCT	US	Pending	12/094,476	Dec 28, 2005	2008-0292938		
560	PA-079.03356-US	FUEL CELL WITH THERMAL CONDUCTANCE OF CATHODE GREATER THAN ANODE	Utility - ORG	US	Issued	10/859,014	Jun 2, 2004	US-2005-0271927-A1	7,429,429	Sep 30, 2008
561	PA-079.03363-US	PREVENTING FUEL STARAVATIN OF A FUEL CELL STACK	Utility - ORG	US	Issued	10/765,737	Jan 27, 2004	US-2005-0164050-A1	7,807,302	Oct 5, 2010
562	PA-079.03367-US	SATURATED VAPOR BLOCK FOR FROZEN FUEL CELL POWER PLANT	Utility - NSPCT	US	Pending	13/059,658	Sep 25, 2008	US-2011-0143246-A1		
563	PA-079.03371-CN	COMPOSITE WATER MANAGEMENT ELECTROLYTE MEMBRANE FOR A FUEL CELL	Utility - NSPCT	CN	Issued	2006680054132.6	Apr 7, 2006	101416342	ZL200680054132.6	Oct 19, 2011
564	PA-079.03371-JP	COMPOSITE WATER MANAGEMENT ELECTROLYTE MEMBRANE FOR A FUEL CELL	Utility - NSPCT	JP	Issued	2009-504172	Apr 7, 2006		5135323	Nov 16, 2012
565	PA-079.03371-US	COMPOSITE WATER MANAGEMENT ELECTROLYTE MEMBRANE FOR A FUEL CELL	Utility - NSPCT	US	Abandoned	12/224,978	Apr 7, 2006	US-2009-0017344-A1		
566	PA-079.03401-US	SYSTEM AND METHOD FOR REDUCING RADIATOR SIZES FOR LOW TEMPERATURE FUEL CELL SYSTEMS	Utility - NSPCT	US	Issued	12/096,828	Jan 10, 2006	US 2008/0292919	8,192,883	Jun 5, 2012
567	PA-079.03401-US-AA	SYSTEM AND METHOD FOR REDUCING RADIATOR SIZES FOR LOW TEMPERATURE FUEL CELL SYSTEMS	Utility - DIV	US	Issued	13/462,058	May 2, 2012	US-2012-0244450-A1	8,318,369	Nov 27, 2012
568	PA-079.03406-CN	FUEL CELL STACK HAVING AN INTEGRATED END PLATE ASSEMBLY	Utility - NSPCT	CN	Issued	200680056721.8	Dec 21, 2006	101589489	ZL200680056721.8	Nov 16, 2011
569	PA-079.03406-EP	FUEL CELL STACK HAVING AN INTEGRATED END PLATE ASSEMBLY	Utility - NSPCT	EP	Pending	06 845 997.3	Dec 21, 2006	2 109 903		
570	PA-079.03406-JP	FUEL CELL STACK HAVING AN INTEGRATED END PLATE ASSEMBLY	Utility - NSPCT	JP	Issued	2009-542740	Dec 21, 2006		5261399	May 2, 2013
571	PA-079.03406-KR	FUEL CELL STACK HAVING AN INTEGRATED END PLATE ASSEMBLY	Utility - NSPCT	KR	Issued	10-2009-7014139	Dec 21, 2006		10-1145597	May 4, 2012
572	PA-079.03406-US	FUEL CELL STACK HAVING AN INTEGRATED END PLATE ASSEMBLY	Utility - NSPCT	US	Issued	12/448,400	Dec 21, 2006		8,354,197	Jan 15, 2013
573	PA-079.03428-US-A	FUEL CELL DEMINERALIZERS INTEGRATED WITH COOLANT ACCUMULATOR	Utility - CIP	US	Issued	11/433,075	May 12, 2006	US-2006-0275640-A1	8,084,161	Dec 27, 2011
574	PA-079.03461-US	FUEL CELL STACK ASSEMBLY SEAL	Utility - NSPCT	US	Pending	13/126,054	Oct 22, 2008	US-2011-0318666-A1		
575	PA-079.03491-US-AA	METHOD AND APPARATUS FOR OPERATING A FUEL CELL IN COMBINATION WITH AN ABSORPTION CHILLER	Utility - DIV	US	Issued	13/397,950	Feb 16, 2012	US-2012-0164548-A1	8,586,257	Nov 19, 2013
576	PA-079.03499-US	QUALITY POWER FROM INDUCTION GENERATOR FEEDING VARIABLE SPEED MOTORS	Utility - ORG	US	Issued	10/982,628	Nov 4, 2004	US-2006-0091674-A2	7,038,329	May 2, 2006
577	PA-079.03500-CN-A	FUEL CELLS EVAPORATIVELY COOLED WITH WATER CARRIED IN PASSAGEWAYS	Utility - NSPCT	CN	Issued	200580045039.4	Dec 15, 2005	101107743	ZL200580045039.4	Nov 7, 2012

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578	PA-079.03500-DE-A	FUEL CELLS EVAPORATIVELY COOLED WITH WATER CARRIED IN PASSAGEWAYS	Utility - NSPCT	DE	Pending	112005003309.0	Dec 15, 2005			
579	PA-079.03500-JP-A	FUEL CELLS EVAPORATIVELY COOLED WITH WATER CARRIED IN PASSAGEWAYS	Utility - NSPCT	JP	Issued	2007-549442	Dec 15, 2005	2008-525989	5117861	Oct 26, 2012
580	PA-079.03500-KR-A	FUEL CELLS EVAPORATIVELY COOLED WITH WATER CARRIED IN PASSAGEWAYS	Utility - NSPCT	KR	Issued	10-2007-7014416	Dec 15, 2005		10-1246531	Mar 15, 2013
581	PA-079.03500-US	FUEL CELLS EVAPORATIVELY COOLED WITH WATER CARRIED IN PASSAGEWAYS	Utility - ORG	US	Issued	11/027,332	Dec 29, 2004	US-2006-0141330-A1	7,504,170	Mar 17, 2009
582	PA-079.03500-US-A	FUEL CELLS EVAPORATIVE REACTANT GAS COOLING AND OPERATIONAL FREEZE PREVENTION	Utility - CIP	US	Issued	11/230,066	Sep 19, 2005	US2006-0141331-A1	7,579,098	Aug 25, 2009
583	PA-079.03500-US-B	FUEL CELLS EVAPORATIVELY COOLED WITH WATER CARRIED IN PASSAGEWAYS	Utility - CIP	US	Issued	11/604,411	Nov 28, 2006	US-2007-0072031-A1	7,638,217	Dec 29, 2009
584	PA-079.03500-US-D	FUEL CELLS EVAPORATIVE REACTANT GAS COOLING AND OPERATIONAL FREEZE PREVENTION	Utility - CIP	US	Issued	12/284,904	Sep 26, 2008		8,182,954	May 22, 2012
585	PA-079.03502-KR	PEM FUEL CELL METHOD OF OPERATION	Utility - NSPCT	KR	Pending	10-2010-7020860	May 7, 2008			
586	PA-079.03502-US	PEM FUEL CELL METHOD OF OPERATION	Utility - NSPCT	US	Pending	12/735,672	May 7, 2008	US-2010-0330448-A1		
587	PA-079.03510-DE	EXTENDED ELECTRODES FOR PEM FUEL CELL APPLICATION	Utility - NSPCT	DE	Pending	112005001378.2	Jun 14, 2005	11200501378T5		
588	PA-079.03510-JP	EXTENDED ELECTRODES FOR PEM FUEL CELL APPLICATION	Utility - NSPCT	JP	Abandoned	2007-516633	Jun 14, 2005			
589	PA-079.03510-US	USE OF EXTENDED ELECTRODE(S), FLOODED WITH MEMBRANE IONOMER, TO IMPROVE UEA LIFETIMES FOR STATIONARY AND TRANSPORTATION PEM FUEL CELL APPLICATIONS	Utility - CIP	US	Issued	10/867,305	Jun 14, 2004		7,473,485	Jan 6, 2009
590	PA-079.03521-IN	FUEL CELL ASSEMBLY WITH OPERATING TEMPERATURES FOR EXTENDED LIFE	Utility - NSPCT	IN	Issued	3514/DELNP/2007	Dec 29, 2004		258258	Dec 23, 2013
591	PA-079.03521-KR	FUEL CELL ASSEMBLY WITH OPERATING TEMPERATURES FOR EXTENDED LIFE	Utility - NSPCT	KR	Issued	10-2007-7012371	Dec 29, 2004		10-1023584	Mar 11, 2011
592	PA-079.03521-US	FUEL CELL ASSEMBLY WITH OPERATING TEMPERATURES FOR EXTENDED LIFE	Utility - NSPCT	US	Abandoned	11/718,258	Dec 29, 2004	US-2007-0292725-A1		
593	PA-079.03542-US	STABILIZED FUEL CELL FLOW FIELD	Utility - NSPCT	US	Issued	12/094,520	Dec 29, 2005	2010/0221641	8,053,138	Nov 8, 2011
594	PA-079.03545-US	WATER MANAGEMENT FOR A FUEL CELL	Utility - NSPCT	US	Pending	12/301,526	Jul 25, 2006	US2009/0155636		
595	PA-079.03548-JP	ULTRASONICALLY WELDED FUEL CELL UNITIZED ELECTRODE ASSEMBLY	Utility - NSPCT	JP	Abandoned	2008-548481	Dec 29, 2005			
596	PA-079.03548-US	ULTRASONICALLY WELDED FUEL CELL UNITIZED ELECTRODE ASSEMBLY	Utility - NSPCT	US	Issued	12/087,036	Dec 29, 2005	US-2009-0169946-A1	8,568,943	Oct 29, 2013
597	PA-079.03559-US	FUEL CELL USING UV CURABLE SEALANT	Utility - NSPCT	US	Pending	13/057,609	Sep 23, 2008	US-2011-0136035-A1		
598	PA-079.03602-JP	RETAINING WATER IN A FUEL CELL STACK FOR COOLING AND HUMIDIFICATION DURING FROZEN STARTUP	Utility - NSPCT	JP	Issued	2008-506428	Apr 15, 2005		5122440	Nov 2, 2012
599	PA-079.03602-KR	RETAINING WATER IN A FUEL CELL STACK FOR COOLING AND HUMIDIFICATION DURING FROZEN STARTUP	Utility - NSPCT	KR	Issued	10-2007-7025414	Apr 15, 2005		10-1235428	Feb 14, 2013
600	PA-079.03602-US	RETAINING WATER IN A FUEL CELL STACK FOR COOLING AND HUMIDIFICATION DURING FROZEN STARTUP	Utility - NSPCT	US	Issued	11/918,624	Apr 15, 2005	US-2009-0061262-A1	7,645,531	Jan 12, 2010
601	PA-079.03607-US	VARIED FUEL CELL OXIDANT FLOW CHANNEL DEPTH RESULTING IN FEWER COOLER PLATES	Utility - ORG	US	Issued	11/025,437	Dec 28, 2004		7,041,408	May 9, 2006
602	PA-079.03662-US	Robust Heating of Fuel Cells During Subfreezing Start	Utility - NSPCT	US	Issued	12/448,628	Dec 28, 2006	US-2010-0119884-A1	7,976,997	Jul 12, 2011
603	PA-079.03665-US	CAPILLARY WATER MANAGEMENT STACK	Utility - NSPCT	US	Issued	11/988,700	Jul 15, 2005	US-2009-0123807-A1	7,871,732	Jan 18, 2011
604	PA-079.03672-JP	OPERATING FUEL CELL DURING DOWN TIME ON CRYOGENIC HYDROGEN BOIL-OFF	Utility - NSPCT	JP	Issued	2009-504171	Apr 7, 2006		5148595	Dec 7, 2012

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605	PA-079.03672-US	OPERATING FUEL CELL DURING DOWN TIME ON CRYOGENIC HYDROGEN BOIL-OFF	Utility - NSPCT	US	Issued	12/225,856	Apr 7, 2006		8,124,290	Feb 28, 2012
606	PA-079.03676-US	WATER RETENTION AND GAS INGESTION CONTROL FOR A FUEL CELL	Utility - NSPCT	US	Pending	12/517,291	Dec 29, 2006	2010/0086817		
607	PA-079.03708-CN	RESERVOIR FOR HOT WEATHER OPERATION OF EVAPORATIVELY COOLED STACK	Utility - NSPCT	CN	Issued	20088012864 4.1	Apr 8, 2008	101999189	ZL200880128644.1	Feb 5, 2014
608	PA-079.03708-JP	RESERVOIR FOR HOT WEATHER OPERATION OF EVAPORATIVELY COOLED STACK	Utility - NSPCT	JP	Pending	2011-503954	Apr 8, 2008			
609	PA-079.03708-KR	RESERVOIR FOR HOT WEATHER OPERATION OF EVAPORATIVELY COOLED STACK	Utility - NSPCT	KR	Issued	10-2010-7021284	Apr 8, 2008		10-1265403	May 10, 2013
610	PA-079.03708-US	RESERVOIR FOR HOT WEATHER OPERATION OF EVAPORATIVELY COOLED FUEL CELL	Utility - NSPCT	US	Pending	12/922,956	Apr 8, 2008	US 2011/0014530		
611	PA-079.03723-US-A	DURABLE PD-BASED ALLOY AND HYDROGEN GENERATION MEMBRANE THEREOF (was R5478)	Utility - CIP	US	Issued	11/712,200	Feb 28, 2007		7,655,183	Feb 2, 2010
612	PA-079.03725-US	was R5498) Synthesis of Palladium Membranes on Internal surface of Porous Support	Utility - NSPCT	US	Issued	12/311,294	Sep 28, 2006	UA-2010-0005969 A1	8,070,860	Dec 6, 2011
613	PA-079.03738-US	FUEL-CASCADED FUEL CELL STACKS WITH DECOUPLED POWER OUTPUTS	Utility - NSPCT	US	Pending	12/448,666	Dec 29, 2006	US-2010-0040914-A1		
614	PA-079.03742-KR	NON-CIRCULATING COOLANT PEM FUEL CELL POWER PLANT WITH ANTIFREEZE BACK PRESSURE AIR VENTING SYSTEM	Utility - NSPCT	KR	Allowed	10-2008-7013813	Dec 23, 2005			
615	PA-079.03742-US	NON-CIRCULATING COOLANT PEM FUEL CELL POWER PLANT WITH ANTIFREEZE BACK PRESSURE AIR VENTING SYSTEM	Utility - NSPCT	US	Issued	12/154,639	Dec 23, 2005	US-2009-0325001-A1	7,976,992	Jul 12, 2011
616	PA-079.03743-CN	ALLOY CATALYSTS FOR EXTENDING LIFE OF FUEL CELL MEMBRANES AND IONOMER	Utility - NSPCT	CN	Issued	20058005239 0.6	Oct 27, 2005		ZL200580052390.6	Jun 13, 2012
617	PA-079.03743-EP	ALLOY CATALYSTS FOR EXTENDING LIFE OF FUEL CELL MEMBRANES AND IONOMER	Utility - NSPCT	EP	Pending	05820917.2	Oct 27, 2005	1 952 468		
618	PA-079.03743-JP	ALLOY CATALYSTS FOR EXTENDING LIFE OF FUEL CELL MEMBRANES AND IONOMER	Utility - NSPCT	JP	Issued	2008-537674	Oct 27, 2005		5132567	Nov 16, 2012
619	PA-079.03743-KR	ALLOY CATALYSTS FOR EXTENDING LIFE OF FUEL CELL MEMBRANES AND IONOMER	Utility - NSPCT	KR	Issued	10-2008-7012068	Oct 27, 2005		10-1256254	Apr 12, 2013
620	PA-079.03743-US	ALLOY CATALYSTS FOR EXTENDING LIFE OF FUEL CELL MEMBRANES AND IONOMER	Utility - NSPCT	US	Issued	12/090,513	Oct 27, 2005	US-2008-0286616-A1	8,288,054	Oct 16, 2012
621	PA-079.03747-US	HYDROGEN SENSOR CELL FOR DETECTING CONTAMINANTS	Utility - NSPCT	US	Issued	12/159,091	Dec 30, 2005	US-2008-0299422-A1	8,076,037	Dec 13, 2011
622	PA-079.03754-US	POSITIONING PEM REINFORCEMENT/INERT FILLER TO MINIMIZE THE	Utility - NSPCT	US	Pending	12/598,051	Oct 29, 2009	US-2010-0092815-A1		
623	PA-079.03765-EP	METHOD OF USING GRAPHITE FOR MAKING HYDROPHILIC ARTICLES	Utility - NSPCT	EP	Abandoned	06816543.0	Oct 6, 2006	1979967		
624	PA-079.03765-US-AC	METHOD OF USING GRAPHITE FOR MAKING HYDROPHILIC ARTICLES	Utility - CON	US	Pending	13/176,309	Jul 5, 2011	US-2012-0003382-A1		
625	PA-079.03773-EP	MOTOR VEHICLE COMPRISING AN INTERNAL COMBUSTION ENGINE AND AN AUXILIARY FUEL CELL POWER PLANT AND METHOD FOR OPERATING THE SAME	Utility - NSPCT	EP	Pending	07004298.1	Mar 2, 2007	EP1832465		
626	PA-079.03773-US	PEM FUEL CELL AUXILIARY POWER SYSTEM AND METHOD FOR STARTING AN INITIAL COMBUSTION ENGINE VEHICLE	Utility - CIP	US	Pending	12/156,798	Jun 5, 2008	US-2009-0301802-A1		
627	PA-079.03774-US	CIRCULATION OF GAS-ENTRAINED FUEL CELL COOLANT	Utility - NSPCT	US	Issued	12/087,088	Dec 29, 2005	US-2009-011288-A1	8,470,480	Jun 25, 2013

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628	PA-079.03781-CN	FUEL CELL COOLANT BUBBLE CONTROL	Utility - NSPCT	CN	Issued	200680049776.6	Dec 29, 2006	101371387	ZL200680049776.6	Apr 10, 2013
793	PA-079.03781-DE	FUEL CELL COOLANT BUBBLE CONTROL	Utility - EPPAT	DE	Issued	06 849 079.6	Dec 29, 2006	1 994 595	602006031789.1	Aug 29, 2012
629	PA-079.03781-EP	FUEL CELL COOLANT BUBBLE CONTROL	Utility - NSPCT	EP	Completed	06 849 079.6	Dec 29, 2006	1 994 595	1994595	Aug 29, 2012
630	PA-079.03781-JP	FUEL CELL COOLANT BUBBLE CONTROL	Utility - NSPCT	JP	Issued	2008-548773	Dec 29, 2006		5189500	Feb 1, 2013
631	PA-079.03781-KR	FUEL CELL COOLANT BUBBLE CONTROL	Utility - NSPCT	KR	Issued	10-2008-7016793	Dec 29, 2006		10-1359302	Jan 29, 2014
632	PA-079.03781-US-A	FUEL CELL COOLANT BUBBLE CONTROL	Utility - CIP	US	Issued	11/638,731	Dec 13, 2006	US-2007-0154747-A1	7,972,740	Jul 5, 2011
633	PA-079.03781-US-AB	FUEL CELL COOLANT BUBBLE CONTROL	Utility - DIV	US	Issued	12/928,854	Dec 20, 2010	US-2011-0097639-A1	8,232,016	Jul 31, 2012
634	PA-079.03796-EP	RESPONSE TO INGESTION OF GAS INTO FUEL CELL COOLANT	Utility - NSPCT	EP	Completed	05858765.0	Dec 30, 2005		1977470	Jan 22, 2014
635	PA-079.03796-KR	RESPONSE TO INGESTION OF GAS INTO FUEL CELL COOLANT	Utility - NSPCT	KR	Pending	10-2008-7016656	Dec 30, 2005			
636	PA-079.03796-US	RESPONSE TO INGESTION OF GAS INTO FUEL CELL COOLANT	Utility - NSPCT	US	Pending	12/086,947	Dec 30, 2005	US-2010-0167140-A1		

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794	PA-0019194-WO	FUEL CELL COMPONENT HAVING MULTIPLE PORE SIZES	Utility - ORG	WO	Pending	PCT/US14/11806	Jan 16, 2014			
795	PA-0019447-WO	FUEL CELL MICOPOROUS LAYER HAVING MULTIPLE DENSITIES	Utility - ORG	WO	Pending	PCT/US14/11809	Jan 16, 2014			
796	PA-0019799-WO	BAFFLE FOR USE IN A FUEL CELL MANIFOLD	Utility - ORG	WO	Pending	PCT/US13/62572	Sep 30, 2013			
797	PA-0020496-US	SOFC Power Plant Concepts: DUO P and DUO E	Utility - ORG	US	Pending	13/872,232	Apr 29, 2013			
798	PA-0021263-US	Fuel Cell System Blower Configuration	Utility - ORG	US	Pending	13/872,237	Apr 29, 2013			
799	PA-0022058-WO	METHOD FOR FABRICATING ELECTROLYTE MEMBRANE USING IN-SITU CROSS-LINKING	Utility - ORG	WO	Pending	PCT/US13/53692	Aug 6, 2013			
800	PA-0022254-WO	Improved Lower Cost Dry-Laid Thin Fuel Cell Substrate	Utility - ORG	WO	Pending	PCT/US13/73829	Dec 9, 2013			
801	PA-0022465-US	METHOD OF MAKING A FUEL CELL COMPONENT HAVING AN INTERDIGITATED FLOW FIELD CONFIGURATION	Utility - ORG	US	Pending	13/950,630	Jul 25, 2013			
802	PA-0023310-WO	METHOD AND SYSTEM FOR CORE-SHELL CATALYST PROCESSING	Utility - ORG	WO	Pending	PCT/US13/51200	Jul 19, 2013			
803	PA-0012458-CN	Fuel Cell Electrode with Gradient Catalyst Structure	Utility - NSPCT	CN	Pending		Jan 20, 2012			
804	PA-0012458-EP	Fuel Cell Electrode with Gradient Catalyst Structure	Utility - NSPCT	EP	Pending		Jan 20, 2012			
805	PA-0012458-IN	Fuel Cell Electrode with Gradient Catalyst Structure	Utility - NSPCT	IN	Pending		Jan 20, 2012			
806	PA-0012458-JP	Fuel Cell Electrode with Gradient Catalyst Structure	Utility - NSPCT	JP	Pending		Jan 20, 2012			
807	PA-0012458-KR	Fuel Cell Electrode with Gradient Catalyst Structure	Utility - NSPCT	KR	Pending		Jan 20, 2012			
808	PA-0012458-US	Fuel Cell Electrode with Gradient Catalyst Structure	Utility - NSPCT	US	Pending		Jan 20, 2012			
809	PA-0020496-WO	FUEL CELL SYSTEM	Utility - ORG	WO	Pending	PCT/US14/34148	Apr 15, 2014			