

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT4590709

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
<b>Name</b>		<b>Execution Date</b>
CERAMATEC, INC.		08/22/2017
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	FIELD UPGRADING USA, INC.	
<b>Street Address:</b>	C/O GREENBERG TRAURIG LLP	
<b>Internal Address:</b>	1200 SEVENTEENTH STREET, SUITE 2400	
<b>City:</b>	DENVER	
<b>State/Country:</b>	COLORADO	
<b>Postal Code:</b>	80202	
<b>PROPERTY NUMBERS Total: 81</b>		
<b>Property Type</b>	<b>Number</b>	
Patent Number:	8216722	
Patent Number:	8012633	
Patent Number:	8323817	
Patent Number:	8859141	
Patent Number:	9263770	
Patent Number:	8771855	
Patent Number:	8968902	
Application Number:	13307123	
Patent Number:	9431682	
Patent Number:	9413036	
Application Number:	14511031	
Application Number:	14956078	
Application Number:	14205019	
Application Number:	14205772	
Application Number:	14298302	
Application Number:	14040241	
Patent Number:	9431656	
Patent Number:	9431681	
Patent Number:	9537179	

PATENT

Property Type	Number
Application Number:	14539435
Patent Number:	9553337
Application Number:	15130741
Application Number:	14824500
Application Number:	15102816
Patent Number:	8012621
Patent Number:	9209445
Patent Number:	8159192
Patent Number:	8722221
Application Number:	60711252
Application Number:	60990579
Application Number:	61096605
Application Number:	61149671
Application Number:	61160621
Application Number:	61258563
Application Number:	61372763
Application Number:	61410812
Application Number:	61418749
Application Number:	61484406
Application Number:	61723122
Application Number:	61707239
Application Number:	61777967
Application Number:	62087507
Application Number:	61697608
Application Number:	61779857
Application Number:	61779866
Application Number:	61831691
Application Number:	61829136
Application Number:	61874114
Application Number:	61891744
Application Number:	61898617
Application Number:	61882516
Application Number:	61903261
Application Number:	62149234
Application Number:	62171695
Application Number:	61438328
Application Number:	60970179
Application Number:	60829499

Property Type	Number
Application Number:	60990556
Application Number:	60970178
Application Number:	60522945
Application Number:	61166597
Application Number:	61166612
Application Number:	61294394
Application Number:	60909735
Application Number:	60758246
Application Number:	60985033
Application Number:	61091627
Application Number:	61120721
Application Number:	61120737
Application Number:	61299244
Application Number:	61320204
Application Number:	62312885
Application Number:	61619170
Application Number:	61772306
Application Number:	60973403
Application Number:	61084090
Application Number:	61319180
Application Number:	61736444
Application Number:	61781530
Application Number:	61831682
Application Number:	61919170

#### CORRESPONDENCE DATA

**Fax Number:** (202)672-5399

*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:** 2026725300

**Email:** JMeara@foley.com, jalee@foley.com, jadamo@foley.com, lekin@foley.com, ipdocketing@foley.com

**Correspondent Name:** FOLEY & LARDNER LLP

**Address Line 1:** 3000 K ST. N.W

**Address Line 2:** SUITE 600

**Address Line 4:** WASHINGTON, D.C. 20007

<b>ATTORNEY DOCKET NUMBER:</b>	111147-0101
<b>NAME OF SUBMITTER:</b>	JOSEPH P. MEARA
<b>SIGNATURE:</b>	/Joseph P. Meara/
<b>DATE SIGNED:</b>	09/12/2017

**Total Attachments: 13**

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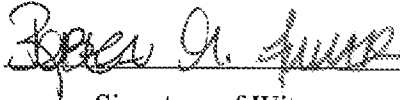
## ASSIGNMENT

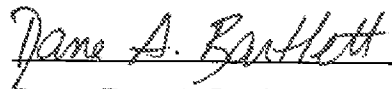
We, Ceramatec, Inc., whose full post office address is, 2425 South 900 West, Salt Lake City, Utah 84119, United States of America, in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, do hereby sell and assign to Field Upgrading USA, Inc., its successors and assigns, whose full post office address is c/o Greenberg Traurig LLP, 1200 Seventeenth Street, Suite 2400, Denver, Colorado, USA, 80202, effective August 22, 2017, all our right, title and interest in the United States of America in and to the United States Patent applications and issued patents attached as Schedule 1 and the inventions claimed therein, including any and all priority rights derived therefrom, and the right, where such right can be legally exercised, in its own name to apply for and obtain Letters Patent, re-examinations, reissues, divisions, renewals, extensions, provisionals, continuations and continuations-in-part thereof in the United States, and the entire interest in any Letters Patent, re-examinations, reissues, divisions, renewals, extensions, provisionals, continuations and continuations-in-part thereof which may be granted on any such applications, including any and all divisionals and continuations of said applications, in the United States of America, including any reissues and extensions thereof, inclusive of the right to sue for past infringements, the same to be held and enjoyed by Field Upgrading USA, Inc. as fully and entirely as the same would have been held and enjoyed by Ceramatec Inc. had the assignment, transfer and conveyance not been made.

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SIGNED at Denver, Colorado, United States of America, this 22 day of August, 2017.

Ceramatec, Inc.

  
Signature of Witness

  
By: Dane A. Bartlett  
Title: Secretary

8000.2.22	Batteries	ALKALI METAL SEAWATER BATTERY	United States of America	Issued	12/558,363 8,323,817
8000.2.26	Batteries	Solid-State Sodium-Based Secondary Cell Having a Sodium Ion Conductive Ceramic Separator	United States of America	Issued	12/940,864 8,859,141
8000.2.26.1DI V	Batteries	Method for Providing Electrical Potential from a Sodium-Based Secondary Cell	United States of America	Issued	14/469,865 9,263,770
8000.2.28	Batteries	ALKALI METAL AQUEOUS BATTERY	United States of America	Issued	13/195,431 8,771,855
8000.2.29	Batteries	Low Temperature Molten Sodium Secondary Cell with Sodium Ion Conductive Electrolyte Membrane	United States of America	Issued	13/290,716 8,968,902
8000.2.30	Batteries	MODERATE TEMPERATURE SODIUM BATTERY	United States of America	Pending	13/307,123 2012/0141856
8000.2.32	Batteries	Degradation Protection of Solid Alkali Ion Conductive Electrolyte Membrane	United States of America	Issued	14/072,468 9,431,682
8000.2.33	Batteries	Battery Charge Transfer Mechanisms	United States of America	Pending	14/040,241 2014/0030571
8000.2.36	Batteries	Sodium-Halogen Secondary Cell	United States of America	Issued	14/019,651 9,413,056
8000.2.36.2CI P	Batteries	Sodium-Halogen Secondary Cell	United States of America	Published	14/511,031 2015/0030896
8000.2.36.3CI P	Batteries	Sodium-Halogen Secondary Cell	United States of America	Pending	14/956,078 2016/0087313
8000.2.40	Batteries	Low Temperature Secondary Cell With Sodium Intercalation Electrode	United States of America	Pending	14/205,019 2014/0212707
8000.2.41	Batteries	Low Temperature Battery with Molten Sodium-FSA Electrolyte	United States of America	Pending	14/205,772 2014/0210422
8000.2.44	Batteries	Low Viscosity/High Conductivity Sodium Haloaluminate Electrolyte	United States of America	Pending	14/298,302 2014/0363717
8000.2.45	Batteries	Hybrid Molten/Solid Sodium Anode for Room/Intermediate Temperature Electric Vehicle Battery	United States of America	Issued	14/292,130 9,431,656

8000.2.47	Batteries	High Temperature Sodium Battery with High Energy Efficiency	United States of America	Issued	14/478,676 9,431,681
8000.2.48	Batteries	Intermediate Temperature Sodium-Metal Halide Battery	United States of America	Issued	14/496,509 9,537,179
8000.2.49	Batteries	Separator for Alkali Metal Ion Battery	United States of America	Allowed	14/539,435
8000.2.51	Batteries	Sodium Secondary Battery	United States of America	Issued	14/555,852 9,553,337
8000.2.53	Batteries	Sodium-Aluminum Battery with Sodium Ion Conductive Ceramic Separator	United States of America	Pending	15/130,741 2016/0308253
8000.2.54	Batteries	Sodium Secondary Battery	United States of America	Pending	14/824,500 2016/0049658
8000.2.58	Batteries	NA Based Secondary Battery	United States of America	Pending	15/102,816 20160315345
8000.2.6	Batteries	Nickel-Metal Hydride Battery Using Alkali Ion Conducting Separator	United States of America	Issued	11/944,719 8,012,621
8000.2.6.1CIP	Batteries	Nickel-Metal Hydride/Hydrogen Hybrid Battery Using Alkali Ion Conducting Separator	United States of America	Issued	13/364,169 9,209,445
8000.2.6.2DIV	Batteries	Nickel-Metal Hydride Battery Using Alkali Ion Conducting Separator	United States of America	Issued	13/189,176 8,159,192
8000.2.6.3DIV	Batteries	Method of Discharging a Nickel-Metal Hydride Battery	United States of America	Issued	13/189,177 8,722,221
6000.2.13p (080505AJ)	Electrochemical Cell for Production of Synthetic Gas Using Atmospheric Air and Water	Prov - ORG	United States of America	Completed	60/711,252
8000.2.14p	Post Retort, Pre-Hydro-Treat Process for Removal of Nitrogen, Sulfur and Metals ...	Prov - ORG	United States of America	Completed	60/990,579
8000.2.22p	ALKALI METAL SEA WATER BATTERY	Prov - ORG	United States of America	Completed	61/096,605



8000.2.23p	Electrochemical Cell With Ionic Ceramic Membrane and Porous Multiphase Electrode	Prov - ORG	United States of America	Completed	61/149,671
8000.2.24p	Sodium-Sulfur Battery With a Substantially Non-Porous Membrane and Enhanced Cath...	Prov - ORG	United States of America	Completed	61/160,621
8000.2.26p	Low Temperature Rechargeable Battery with Sodium Ion Conducting Ceramic Separato...	Prov - ORG	United States of America	Completed	61/258,563
8000.2.28p	ALKALI METAL AQUEOUS BATTERY	Prov - ORG	United States of America	Completed	61/372,763
8000.2.29p	Molten Sodium Nasicon Based Battery	Prov - ORG	United States of America	Completed	61/410,812
8000.2.30p	MODERATE TEMPERATURE SODIUM BATTERY	Prov - ORG	United States of America	Completed	61/418,749
8000.2.31p	ALKALI METAL ION BATTERY USING ALKALI METAL CONDUCTIVE CERAMIC SEPARATOR	Prov - ORG	United States of America	Completed	61/484,406

8000.2.32p	Degradation Protection of Solid Alkali Ion Conductive Electrolyte Membrane (SK ...	Prov - ORG	United States of America	Completed	61/723,122
8000.2.33p	Charge Transfer Mechanism Containing a Metal that Complexes with Iodide (SK join...	Prov - ORG	United States of America	Completed	61/707,239
8000.2.36.1p	Sodium- Halogen battery (Govt. Funding - Contract No.118987 5 - Sandia National Lab...	Prov - ORG	United States of America	Completed	61/777,967
8000.2.36.3CI Pp	Sodium- Halogen Secondary Cell (Governme nt Funding - Contract No.118987 5 - Sandia...	Prov - ORG	United States of America	Completed	62/087,507
8000.2.36p	Sodium- Halogen battery (Govt. Funding - Contract No.118987 5 - Sandia National Lab...	Prov - ORG	United States of America	Completed	61/697,608
8000.2.40p	Low Temperatur e Secondary Cell With Sodium Intercalatio n Electrode - NOT SK	Prov - ORG	United States of America	Completed	61/779,857

8000.2.41p	Low Temperatur e Battery with Molten Sodium- FSA Electrolyte (FSA Zebra) (SK Devel...	Prov - ORG	United States of America	Completed	61/779,866
8000.2.44p	Low Viscosity/H igh Conductivit y Sodium Haloalumin ate Electrolyte (No Govt. Fundi...	Prov - ORG	United States of America	Completed	61/831,691
8000.2.45p	Hybrid Molten/Soli d Sodium Anode for Room/Inter mediate Temperatur e EV Battery (N...	Prov - ORG	United States of America	Completed	61/829,136
8000.2.47p	High Temperatur e Sodium- Sulfur Battery with High Energy Efficiency	Prov - ORG	United States of America	Completed	61/874,114
8000.2.48.1p	Intermediat e Temperatur e Sodium- Nickel Halide Battery	Prov - ORG	United States of America	Completed	61/891,744
8000.2.48.2p	Intermediat e Temperatur e Sodium- Metal Halide Battery	Prov - ORG	United States of America	Completed	61/898,617
8000.2.48p	Intermediat e Temperatur e Sodium- Nickel Halide Battery	Prov - ORG	United States of America	Completed	61/882,516

8000.2.49p	Separator for Alkali Metal Ion Battery	Prov - ORG	United States of America	Completed	61/903,261
8000.2.52p	Sodium-Aluminum Battery with NaSICON Ceramic Separator	Prov - ORG	United States of America	Completed	62/149,234
8000.2.53p	Sodium-Aluminum Battery with Sodium Ion Conductive Ceramic Separator	Prov - ORG	United States of America	Completed	62/171,695
8000.2.6.1p	Nickel-Metal Hydride/Hydrogen Hybrid Battery Using Alkali Ion Conducting Separat...	Prov - ORG	United States of America	Completed	61/438,328
8000.2.9p	High Specific energy Rechargeable battery with Non-Toxic Anode and Cathode based...	Prov - ORG	United States of America	Closed	60/970,179
8000.2.11p (5000.2.23p)	Advanced Lithium Batteries Based on Ceramic Membrane Electrolyte	Prov - ORG	United States of America	Completed	60/829,499
8000.2.13p	Solid Lithium Ion Conductive Electrolyte Battery	Prov - ORG	United States of America	Completed	60/990,556
8000.2.8p	Hi Rate Lithium-Sulfur Battery with Non-Porous Ceramic Separator	Prov - ORG	United States of America	Completed	60/970,178

5000.2.14p (CER-041491PV)	SOLID ELECTRO LYTE THERMO ELECTRO CHEMICAL SYSTEM	Prov - ORG	United States of America	Completed	60/522,945
5000.2.22p	APPARATUS AND METHOD FOR CREATING A METAL SALT (1 compartment)	Prov - ORG	United States of America	Unfiled	
5000.2.25.1p	ELECTROLYTIC PROCESS TO SEPARATE ALKALI METAL IONS FROM ALKALI AQUEOUS SOLUTIONS...	Prov - ORG	United States of America	Completed	61/166,597
5000.2.25.2p	Sodium Salt Separation From Byproduct Streams 3- Compartment (2008- IRD- 17&18 :sod...	Prov - ORG	United States of America	Completed	61/166,612
5000.2.25.3p	ELECTROLYTIC PROCESS TO SEPARATE SODIUM METAL IONS FROM SODIUM LACTATE AQUEOUS S...	Prov - ORG	United States of America	Completed	61/294,394

5000.2.25p	Electrochemical Process to Recycle Aqueous Alkali Chemicals Using Ceramic Ion Co...	Prov - ORG	United States of America	Completed	60/909,735
5000.2.29p (1000.2.120p 2006-US- 0002PV)	SYNTHESIS OF BIODIESEL USING ALKALIC CATION CONDUCTIVE CERAMIC MEMBRANES	Prov - ORG	United States of America	Completed	60/758,246
5000.2.33p	An Electrolytic Process to Separate Alkali Metal Ions from Bio Mass-Derived Stre...	Prov - ORG	United States of America	Completed	60/985,033
5000.2.35p	THREE COMPARTMENT APPARATUS AND METHOD FOR PRODUCING SODIUM HYPOCHLORITE	Prov - ORG	United States of America	Completed	61/091,627
5000.2.37p	TWO COMPARTMENT ELECTROCHEMICAL PROCESS FOR PRODUCTION OF SODIUM HYPOCHLORITE	Prov - ORG	United States of America	Completed	61/120,721

5000.2.38P	THREE COMPAR TMENT ELECTRO CHEMICA L PROCESS FOR PRODCUT ION OF SODIUM HYPOCHL ORITE ...	Prov - ORG	United States of America	Completed	61/120,737
5000.2.47p	ELECTRO LYTIC CONVERS ION OF CARBOX YLIC ACID ALKALI SALTS TO HYDROC ARBONS (2009-IR...	Prov - ORG	United States of America	Completed	61/299,244
5000.2.48p (2010-IRD-3)	PRODUCT ION OF SODIUM BICARBO NATE AND SODIUM HYDROXI DE FROM SODIUM CARBON ATE IN A...	Prov - ORG	United States of America	Completed	61/320,204
5000.2.61	Recovery of Ceramic Ion Exchange Membrane in and Electroche mical Cell by Current...	Utility - ORG	United States of America	Unfiled	
5000.2.66p	Process for Synthesizin g Styrene Using Electrolysis (2012-IRD- 10)	Prov - ORG	United States of America	Unfiled	
5000.2.73p	Ceramic Ion Conducting Membrane with Novel Architectur e	Prov - ORG	United States of America	Closed	62/312,885

8000.2.34p	High Power, Low Total Energy Storage Battery with Honecomb Separator	Prov - ORG	United States of America	Completed	61/619,170
8000.2.35p	Alkali Metal Intercalation Material as an Electrode in a Secondary Battery	Prov - ORG	United States of America	Completed	61/772,306
8000.2.10p	Advanced Radiation Tolerant Lithium Batteries Based on Ceramic Electrolyte Separ...	Prov - ORG	United States of America	Closed	60/973,403
8000.2.21p	ENERGY SYSTEM WITH LITHIUM WATER BATTERY AND FUEL CELL	Prov - ORG	United States of America	Completed	61/084,090
8000.2.27p	TUBULAR METAL-AIR OR METAL-SEA WATER BATTERY AND METHOD FOR RELOADING THAT CAN H...	Prov - ORG	United States of America	Completed	61/319,180
8000.2.38p	BATTERY WITH BROMINE OR BROMIDE ELECTRODE AND SODIUM SELECTIVE MEMBRANE - NOT SK...	Prov - ORG	United States of America	Completed	61/736,444



8000.2.39p	SODIUM- HALOGE N SECONDA RY FLOW CELL (Governme nt Funding - Contract No.118987 5 - \$...	Prov - ORG	United States of America	Completed	61/781,530
8000.2.43p	Solid-State- Sodium- Sulfur/Poly sulfide Cathode for Intermediat e Temperatur e Sodi...	Prov - ORG	United States of America	Unfiled	
8000.2.46p	In situ Methods for Preparation of Sodium Haloalumin ate Catholytes (No Govt. Fun...	Prov - ORG	United States of America	Closed	61/831,682
8000.2.50p	New Constructio n Method for Intermediat e Temperatur e ZEBRA Battery	Prov - ORG	United States of America	Reassigned	61/919,170