

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
<b>Name</b>		<b>Execution Date</b>
AKRION SYSTEMS LLC		01/16/2018
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	NAURA AKRION INC.	
<b>Street Address:</b>	6330 HEDGEWOOD DRIVE, SUITE 150	
<b>City:</b>	ALLENTOWN	
<b>State/Country:</b>	PENNSYLVANIA	
<b>Postal Code:</b>	18106	
<b>PROPERTY NUMBERS Total: 95</b>		
<b>Property Type</b>	<b>Number</b>	
Patent Number:	8279712	
Patent Number:	9049520	
Application Number:	14727116	
Patent Number:	6907890	
Patent Number:	6837944	
Patent Number:	6840250	
Patent Number:	6754980	
Patent Number:	6928751	
Patent Number:	7100304	
Patent Number:	6842998	
Patent Number:	6928750	
Patent Number:	6684890	
Patent Number:	7156111	
Patent Number:	7047989	
Patent Number:	7578302	
Patent Number:	6923192	
Patent Number:	8987032	
Application Number:	15240451	
Patent Number:	6722056	
Patent Number:	9070722	

PATENT

Property Type	Number
Application Number:	14753837
Patent Number:	6955727
Patent Number:	7946299
Patent Number:	6328809
Patent Number:	7287537
Patent Number:	7614406
Patent Number:	7644512
Patent Number:	8056253
Patent Number:	8276291
Patent Number:	8739429
Patent Number:	9337065
Application Number:	15151091
Patent Number:	8343287
Patent Number:	7169253
Patent Number:	7976718
Patent Number:	6766818
Patent Number:	7311847
Patent Number:	6649018
Patent Number:	7784478
Patent Number:	8316869
Patent Number:	9305768
Application Number:	15090238
Patent Number:	6799588
Patent Number:	8741066
Patent Number:	7185661
Patent Number:	8084280
Application Number:	15177643
Application Number:	14239709
Application Number:	14398934
Application Number:	14171190
Application Number:	14490080
Application Number:	14703459
Patent Number:	6679272
Patent Number:	7104268
Patent Number:	6892738
Patent Number:	7518288
Patent Number:	7836769
Patent Number:	7938131

Property Type	Number
Patent Number:	6148445
Patent Number:	6125551
Patent Number:	6871657
Patent Number:	6767877
Patent Number:	8257505
Patent Number:	6863836
Patent Number:	6626189
Patent Number:	6732749
Patent Number:	6818563
Patent Number:	6532974
Patent Number:	7268469
Patent Number:	6122837
Application Number:	11755619
Application Number:	11266402
Application Number:	10931441
Application Number:	11777258
Application Number:	13633662
Application Number:	10865440
Application Number:	10171494
Application Number:	11489059
Application Number:	11177147
Application Number:	11370361
Application Number:	11370707
Application Number:	14667157
Application Number:	10171431
Application Number:	13092661
Application Number:	11649535
Application Number:	11640718
Application Number:	11178923
Application Number:	11176406
Application Number:	11841427
Application Number:	11544802
Application Number:	11227705
Application Number:	11454447
Application Number:	11625651
Application Number:	11777252
Application Number:	07272501

**CORRESPONDENCE DATA****Fax Number:** (949)475-4754

*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:** 949-451-3800**Email:** skann@gibsondunn.com**Correspondent Name:** STEPHANIE KANN**Address Line 1:** 3161 MICHELSON DRIVE**Address Line 2:** GIBSON, DUNN & CRUTCHER LLP**Address Line 4:** IRVINE, CALIFORNIA 92612

<b>ATTORNEY DOCKET NUMBER:</b>	12833-00001
<b>NAME OF SUBMITTER:</b>	STEPHANIE KANN
<b>SIGNATURE:</b>	/stephanie kann/
<b>DATE SIGNED:</b>	01/19/2018

**Total Attachments: 13**

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## **PATENT ASSIGNMENT**

This Patent Assignment is made and entered into this 16th day of January, 2018 by and between Akrion Systems LLC, a Delaware limited liability company, located at 6330 Hedgewood Drive, Suite 150, Allentown, PA 18106 (“Assignor”), and NAURA Akrion Inc., a Delaware corporation, located at 6330 Hedgewood Drive, Suite 150, Allentown, PA 18106.

WHEREAS, Assignor is the owner of the inventions and U.S. and international patents and patent applications set forth on Schedule A (the “Patents”) and desires to assign the Patents to Assignee; and

WHEREAS, Assignee desires to accept all of Assignor’s right, title and interest in and to the Patents.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor and Assignee agree as follows:

1. Assignor hereby assigns to Assignee all of Assignor’s right, title and interest in and to the Patents, including any and all rights therein provided by international conventions and treaties, for Assignee’s own use and enjoyment and for the use and enjoyment of Assignee’s successors, assigns, or other legal representatives as fully and entirely as the same would have been enjoyed by Assignor if this Patent Assignment had not been made (together, the “Assigned Rights”).

2. Assignor further agrees to cooperate with the Assignee to take all actions and execute all documents necessary or desirable to perfect the interest of Assignee in and to the Assigned Rights, and shall not enter into any agreement in conflict with this Patent Assignment.

3. This Patent Assignment may be executed in one or more counterparts, each of which when executed shall be deemed to be an original but all of which taken together shall constitute one and the same agreement. Delivery of an executed counterpart of a signature page to this Patent Assignment by electronic mail or facsimile shall be as effective as delivery of a manually executed counterpart of this Patent Assignment.

4. No provision of this Patent Assignment may be amended or modified except by a written instrument signed by the parties hereto.

5. This Patent Assignment and any disputes or controversies arising hereunder shall be construed and enforced in accordance with, and governed by the internal laws of, the State of Delaware without giving effect to the conflicts of laws principles thereof that would apply the laws of any other jurisdiction.

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IN WITNESS WHEREOF, the Assignor has caused this Patent Assignment to be executed as of the date first written above by its duly authorized officer.

ASSIGNOR:

AKRION SYSTEMS LLC

By: 

Name: M. IDANPOU

Title: C.E.O.

*Signature Page to the Instrument of Assignment -- Patents*

**SCHEDULE A****PATENTS**

<b>Patent</b>	<b>Jurisdiction</b>	<b>Docket No.</b>	<b>Status</b>	<b>App Date</b>	<b>App. No</b>	<b>Grant Date</b>	<b>Grant No.</b>
COMPOSITE TRANSDUCER APPARATUS AND SYSTEM FOR PROCESSING A SUBSTRATE AND METHOD OF CONSTRUCTING THE SAME	China	AKR- 002-CN	Granted	06-Nov-08	200880124087.6	02-Jan-13	ZL200880124087.6
SOUND PROCESSING OBJECT APPARATUS	China	AKR- 002-CN- DIV	Granted	06-Nov-08	201210450381.4	22-Jun-16	ZL201210450381.4
METHOD AND SYSTEM FOR PROCESSING A SUBSTRATE USING A COMPOSITE TRANSMITTER	Japan	AKR- 002-JP	Granted	06-Nov-08	JP2010-533253	06-Dec-13	5422847
APPARATUS FOR GENERATING ACOUSTIC ENERGY AND METHOD OF CONSTRUCTING THE SAME	Korea (South)	AKR-002-KR	Granted	04-Jun-10	10-2010-7012447	18-Jan-13	10-1226071
COMPOSITE TRANSDUCER APPARATUS AND SYSTEM FOR PROCESSING A SUBSTRATE AND METHOD OF CONSTRUCTING THE SAM	United States of America	AKR-002-US	Granted	06-Nov-08	12266543	02-Oct-12	8279712
COMPOSITE TRANSDUCER APPARATUS AND SYSTEM FOR PROCESSING A SUBSTRATE AND METHOD OF CONSTRUCTING THE SAME	United States of America	AKR-002-US-CON-CIP	Granted	19-May-14	14281829	02-Jun-15	9049520
COMPOSITE TRANSDUCER APPARATUS AND SYSTEM FOR PROCESSING A SUBSTRATE AND METHOD OF	United States of America	AKR-002-US-CON-CIP-CON	Pending	01-Jun-15	14727116	-	-

Patent	Jurisdiction	Docket No.	Status	App Date	App. No	Grant Date	Grant No.
CONSTRUCTING THE SAME							
CAPILLARY DRYING OF SUBSTRATES	United States of America	AKR-003-US	Granted	05-Feb-03	10358636	21-Jun-05	6907890
CLEANING AND DRYING METHOD AND APPARATUS	United States of America	AKR-004-US	Granted	04-Mar-02	10091011	04-Jan-05	6837944
NEXTGEN WET PROCESS TANK	United States of America	AKR-005-US	Abandoned	05-Apr-02	10117778	11-Jan-05	6840250
MEGASONIC CLEANER AND DRYER	EPO	AKR-007-EP	Granted	12-Jun-02	02742054.6	14-Feb-07	1402566
MEGASONIC CLEANER AND DRYER	Germany	AKR-007-EP/D E	Granted	12-Jun-02		14-Feb-07	1402566
MEGASONIC CLEANER AND DRYER	France	AKR-007-EP/F R	Granted	12-Jun-02		14-Feb-07	1402566
MEGASONIC CLEANER AND DRYER	United States of America	AKR-007-US	Granted	12-Jun-02	10171426	29-Jun-04	6754980
MEGASONIC CLEANER AND DRYER	United States of America	AKR-007-US2	Granted	12-Jun-02	10171430	16-Aug-05	6928751
MEGASONIC CLEANER AND DRYER	United States of America	AKR-007-US-DIV	Granted	10-Jun-04	10864927	05-Sep-06	7100304
MEMBRANE DRYER	United States of America	AKR-008-US	Abandoned	05-Apr-02	10117739	18-Jan-05	6842998
MEMBRANE DRYER	United States of America	AKR-008-US-DIV	Granted	27-Sep-04	10951009	16-Aug-05	6928750
MEGASONIC CLEANING USING SUPERSATURATED CLEANING SOLUTION	Japan	AKR-010-JP	Granted	10-Jun-04	2006533684	10-Dec-10	4643582
MEGASONIC CLEANING USING SUPERSATURATED CLEANING SOLUTION	Korea (South)	AKR-010-KR	Granted	12-Dec-05	2005-7023902	20-Jan-12	1110905
MEGASONIC CLEANING USING SUPERSATURATED CLEANING SOLUTION	Taiwan	AKR-010-TW	Granted	11-Jun-04	93116958	21-Sep-10	1330552
MEGASONIC CLEANER PROBE SYSTEM WITH GASIFIED FLUID	United States of America	AKR-010-US	Granted	16-Jul-01	09906384	03-Feb-04	6684890
MEGASONIC CLEANING USING SUPERSATURATED CLEANING SOLUTION	United States of America	AKR-010-US-CIP2	Granted	10-Jun-04	10864929	02-Jan-07	7156111
SONIC-ENERGY CLEANER SYSTEM WITH GASIFIED FLUID	United States of America	AKR-010-US-CON	Granted	19-Dec-03	10742214	23-May-06	7047989



Patent	Jurisdiction	Docket No.	Status	App Date	App. No	Grant Date	Grant No.
MEGASONIC CLEANING USING SUPERSATURATED CLEANING SOLUTION	United States of America	AKR-010-US-DIV	Granted	09-Nov-06	11595029	25-Aug-09	7578302
STACKABLE PROCESS CHAMBERS	United States of America	AKR-011-US	Granted	12-Jun-02	10171429	02-Aug-05	6923192
METHOD FOR SELECTIVE UNDER-ETCHING OF POROUS SILICON	United States of America	AKR-016-US	Granted	03-Mar-10	12716785	24-Mar-15	8987032
METHOD FOR SELECTIVE UNDER-ETCHING OF POROUS SILICON	United States of America	AKR-016-US-CON2	Pending	18-Aug-16	15240451	-	-
DRYING VAPOR GENERATION	United States of America	AKR-017-US	Granted	15-Mar-02	10098847	20-Apr-04	6722056
SYSTEM AND METHOD FOR THE SONIC-ASSISTED CLEANING OF SUBSTRATES UTILIZING A SONIC-TREATED LIQUID	United States of America	AKR-018-US	Granted	17-Oct-07	12445783	30-Jun-15	9070722
SYSTEM AND METHOD FOR THE SONIC-ASSISTED CLEANING OF SUBSTRATES UTILIZING A SONIC-TREATED LIQUID	United States of America	AKR-018-US-CON	Abandoned	29-Jun-15	14753837	-	-
SUBSTRATE PROCESS TANK WITH ACOUSTICAL SOURCE TRANSMISSION AND METHOD OF PROCESSING SUBSTRATES	China	AKR-020-CN	Granted	31-Oct-03	200380107761.7	31-Oct-03	1732711
SUBSTRATE PROCESS TANK WITH ACOUSTICAL SOURCE TRANSMISSION AND METHOD OF PROCESSING SUBSTRATES	United States of America	AKR-020-US	Granted	31-Oct-03	10699042	18-Oct-05	6955727
SPRAY JET CLEANING APPARATUS AND METHOD	Taiwan	AKR-021-TW	Granted	08-May-07	096116332	11-Oct-13	1411474
SPRAY JET CLEANING APPARATUS AND METHOD	United States of America	AKR-021-US	Granted	08-May-07	11745866	24-May-11	7946299
VAPOR DRYING	United States	AKR-022-	Granted	08-Jan-99	09227637	11-Dec-01	6328809

Patent	Jurisdiction	Docket No.	Status	App Date	App. No	Grant Date	Grant No.
SYSTEM AND METHOD	of America	US					
MEGASONIC PROBE ENERGY DIRECTOR	United States of America	AKR-023-US	Granted	29-Jan-02	10059682	30-Oct-07	7287537
MEGASONIC PROBE ENERGY DIRECTOR	United States of America	AKR-023-US-DIV	Granted	17-Oct-07	11873750	10-Nov-09	7614406
SYSTEM AND METHOD FOR DRYING A ROTATING SUBSTRATE	Taiwan	AKR-024-TW	Granted	18-Jan-07	096101976	01-Jan-15	1467640
SYSTEM AND METHOD FOR DRYING A ROTATING SUBSTRATE	United States of America	AKR-024-US	Granted	18-Jan-07	11624445	12-Jan-10	7644512
SYSTEMS AND METHODS FOR DRYING A ROTATING SUBSTRATE	United States of America	AKR-024-US-CON	Granted	12-Jan-10	12685935	15-Nov-11	8056253
SYSTEM AND METHOD FOR DRYING A ROTATING SUBSTRATE	United States of America	AKR-024-US-CON2	Granted	15-Nov-11	13296760	02-Oct-12	8276291
SYSTEMS AND METHODS FOR DRYING A ROTATING SUBSTRATE	United States of America	AKR-024-US-CON3	Granted	02-Oct-12	13633843	03-Jun-14	8739429
SYSTEM AND METHOD FOR DRYING A ROTATING SUBSTRATE	United States of America	AKR-024-US-CON4	Granted	03-Jun-14	14294742	10-May-16	9337065
SYSTEM AND METHOD FOR DRYING A ROTATING SUBSTRATE	United States of America	AKR-024-US-CON5	Abandoned	10-May-16	15151091	-	-
APPARATUS FOR EJECTING FLUID ONTO A SUBSTRATE AND SYSTEM AND METHOD OF INCORPORATING THE SAME	United States of America	AKR-026-US-DIV	Granted	10-May-11	13104580	01-Jan-13	8343287
PROCESS SEQUENCE FOR PHOTORESIST STRIPPING AND CLEANING OF PHOTOMASKS FOR IC MANUFACTURING	United States of America	AKR-027-US	Granted	02-Aug-04	10909764	30-Jan-07	7169253
APPARATUS FOR CARRYING RETICLES AND METHOD OF USING THE SAME TO PROCESS RETICLES	Taiwan	AKR-033-TW	Granted	03-Sep-04	093126709	21-Nov-12	1377447
SYSTEM AND METHOD FOR SELECTIVE ETCHING OF SILICON NITRIDE DURING SUBSTRATE	United States of America	AKR-034-US	Granted	20-Apr-07	10585229	12-Jul-11	7976718

Patent	Jurisdiction	Docket No.	Status	App Date	App. No	Grant Date	Grant No.
PROCESSING							
SYSTEM AND METHOD OF SUPPLYING POWER TO A SONIC SOURCE AND USE OF THE SAME TO PROCESS SUBSTRATES	China	AKR-035-CN	Granted	15-Sep-05	200580030943.8	23-May-12	ZL200580030943.8
SYSTEM AND METHOD OF SUPPLYING POWER TO A SONIC SOURCE AND USE OF THE SAME TO PROCESS SUBSTRATES	Korea (South)	AKR-035-KR	Granted	16-Apr-07	10-2007-7008639	23-Sep-13	101312298
CHEMICAL CONCENTRATION CONTROL DEVICE	United States of America	AKR-044-US	Granted	05-Apr-02	10117725	27-Jul-04	6766818
SYSTEM AND METHOD FOR POINT-OF-USE FILTRATION AND PURIFICATION OF FLUIDS USED IN SUBSTRATE PROCESSING	United States of America	AKR-048-US	Granted	20-Jul-04	10895511	25-Dec-07	7311847
SYSTEM FOR REMOVAL OF PHOTORESIST USING SPARGER	United States of America	AKR-050-US	Granted	17-Jan-02	10052823	18-Nov-03	6649018
ACOUSTIC ENERGY SYSTEM, METHOD AND APPARATUS FOR PROCESSING FLAT ARTICLES	Korea (South)	AKR-051-KR	Granted	20-Aug-08	10-2008-7020402	25-Feb-14	10-1369197
ACOUSTIC ENERGY SYSTEM, METHOD AND APPARATUS FOR PROCESSING FLAT ARTICLES	Taiwan	AKR-051-TW	Granted	19-Jan-07	096102102	01-Apr-16	1528436
ACOUSTIC ENERGY SYSTEM, METHOD AND APPARATUS FOR PROCESSING FLAT ARTICLES	United States of America	AKR-051-US	Granted	22-Jan-07	11625556	31-Aug-10	7784478
ACOUSTIC ENERGY SYSTEM, METHOD AND APPARATUS FOR PROCESSING FLAT ARTICLES	United States of America	AKR-051-US-CON	Granted	30-Aug-10	12871286	27-Nov-12	8316869
METHOD FOR PROCESSING FLAT ARTICLES	United States of America	AKR-051-US-CON-DIV	Granted	27-Nov-12	13686697	05-Apr-16	9305768
SYSTEM AND METHOD FOR PROCESSING FLAT	United States of America	AKR- 051-US-CON-	Abandoned	04-Apr-16	15090238	-	-

Patent	Jurisdiction	Docket No.	Status	App Date	App. No	Grant Date	Grant No.
ARTICLES		DIV-CON					
APPARATUS FOR TREATING SUBSTRATES	United States of America	AKR-090-US	Granted	14-Jul-00	10031923	05-Oct-04	6799588
METHOD FOR CLEANING SUBSTRATES UTILIZING SURFACE PASSIVATION AND/OR OXIDE LAYER GROWTH TO PROTECT FROM PITTING	United States of America	AKR-102-US	Granted	19-Feb-08	12070620	03-Jun-14	8741066
RECIPROCATING MEGASONIC PROBE	United States of America	AKR-109-A	Granted	06-May-02	10140029	06-Mar-07	7185661
METHOD OF MANUFACTURING A SOLAR CELL USING A PRE-CLEANING STEP THAT CONTRIBUTES TO HOMOGENOUS TEXTURE MORPHOLOGY	United States of America	AKR-150-US	Granted	05-Oct-10	12898374	27-Dec-11	8084280
VACUUM WAFER PREPARATION/DRYING	United States of America	AKR-151-US-CON	Pending	09-Jun-16	15177643	-	-
REDUCED CONSUMPTION STAND ALONE RINSE TOOL HAVING SELF-CONTAINED CLOSED-LOOP FLUID CIRCUIT, AND METHOD OF RINSING SUBSTRATES USING THE SAME	United States of America	AKR-152-US	Pending	19-Feb-14	14239709	-	-
METHOD FOR CONSISTENTLY TEXTURIZING SILICON WAFERS DURING SOLAR CELL WET CHEMICAL PROCESSING	United States of America	AKR-153-US	Abandoned	04-Nov-14	14398934	-	-
SYSTEM, APPARATUS AND METHOD FOR PROCESSING SUBSTRATES USING ACOUSTIC ENERGY	China	AKR-154-CN	Pending	03-Feb-14	201480008441	-	-
SYSTEM FOR PROCESSING SUBSTRATES USING ACOUSTIC ENERGY	Korea (South)	AKR-154-KR	Pending	03-Feb-14	10-2015-7023802	-	-
SYSTEM, APPARATUS AND METHOD FOR PROCESSING SUBSTRATES USING ACOUSTIC ENERGY	Taiwan	AKR-154-TW	Pending	05-Feb-14	103103785	-	-

Patent	Jurisdiction	Docket No.	Status	App Date	App. No	Grant Date	Grant No.
SYSTEM, APPARATUS AND METHOD FOR PROCESSING SUBSTRATES USING ACOUSTIC ENERGY	United States of America	AKR-154-US	Abandoned	03-Feb-14	14171190	-	-
SYSTEM, APPARATUS AND METHOD FOR PROCESSING SUBSTRATES USING ACOUSTIC ENERGY	Taiwan	AKR-155-TW	Pending	18-Sep-14	103132332	-	-
SYSTEM, APPARATUS AND METHOD FOR PROCESSING SUBSTRATES USING ACOUSTIC ENERGY	United States of America	AKR-155-US	Pending	18-Sep-14	14490080	-	-
Correlation between Conductivity and pH Measurements for KOH Texturing Solutions and Additives	United States of America	AKR-156-US	Pending	04-May-15	14703459	-	-
MEGASONIC PROBE ENERGY ATTENUATOR	United States of America	VERTE-75A	Granted	03-Aug-01	09922509	20-Jan-04	6679272
MEGASONIC CLEANING SYSTEM WITH BUFFERED CAVITATION METHOD	United States of America	VERTE-79A	Granted	10-Jan-03	10341425	12-Sep-06	7104268
APPARATUS AND METHODS FOR REDUCING DAMAGE TO SUBSTRATES DURING MEGASONIC CLEANING PROCESSES	United States of America		Abandoned	20-Jan-04	10760596	17-May-05	6892738
SYSTEM FOR MEGASONIC PROCESSING OF AN ARTICLE	United States of America		Abandoned	16-Aug-07	11839885	14-Apr-09	7518288
APPARATUS AND METHOD OF MEASURING ACOUSTICAL ENERGY APPLIED TO A SUBSTRATE	United States of America		Abandoned	10-Aug-07	9040176	23-Nov-10	7836769
APPARATUS FOR EJECTING FLUID ONTO A SUBSTRATE AND SYSTEM AND METHOD INCORPORATING THE SAME	United States of America		Abandoned	23-Jul-07	10053449	10-May-11	7938131
AWNING SLEEVE SHIRT	United States of America		Abandoned	26-Jul-99	10117739	21-Nov-00	6148445
GAS SEAL AND	United States		Abandoned	17-Mar-98	10053364	3-Oct-00	6125551

Patent	Jurisdiction	Docket No.	Status	App Date	App. No	Grant Date	Grant No.
SUPPORT FOR ROTATING SEMICONDUCTOR PROCESSOR	of America						
LOW PROFILE WAFER CARRIER	United States of America		Abandoned	17-Jan-02	13270849	29-Mar-05	6871657
METHOD AND SYSTEM FOR CHEMICAL INJECTION IN SILICON WAFER PROCESSING	United States of America		Abandoned	18-Jan-02	10304583	27-Jul-04	6767877
METHOD FOR MEGASONIC PROCESSING OF AN ARTICLE	United States of America		Abandoned	11-Oct-11	10117778	4-Sep-12	8257505
METHOD FOR REMOVAL OF PHOTORESIST USING SPARGER	United States of America		Abandoned	5-Aug-03	10014121	8-Mar-05	6863836
METHOD OF PROCESSING SUBSTRATES USING PRESSURIZED MIST GENERATION	United States of America		Abandoned	25-Nov-02	10366054	30-Sep-03	6626189
PARTICLE BARRIER DRAIN	United States of America		Abandoned	11-Dec-01	11375907	11-May-04	6732749
PROCESS AND APPARATUS FOR REMOVAL OF PHOTORESIST FROM SEMICONDUCTOR WAFERS USING SPRAY NOZZLES	United States of America		Abandoned	13-Feb-03	9040176	16-Nov-04	6818563
PROCESS TANK WITH PRESSURIZED MIST GENERATION	United States of America		Abandoned	5-Apr-02	10053449	18-Mar-03	6532974
TRANSDUCER ASSEMBLY FOR MEGASONIC PROCESSING OF AN ARTICLE AND APPARATUS UTILIZING THE SAME	United States of America		Abandoned	15-Mar-06	10117739	11-Sep-07	7268469
CENTRIFUGAL WAFER PROCESSOR AND METHOD	United States of America		Abandoned	24-Jun-28	9103930	26-Sep-00	6122837
APPARATUS AND METHOD FOR PROCESSING A HYDROPHOBIC SURFACE OF A SUBSTRATE	United States of America		Abandoned	30-May-07	11755619		

Patent	Jurisdiction	Docket No.	Status	App Date	App. No	Grant Date	Grant No.
APPARATUS AND METHOD FOR REMOVING TRACE AMOUNTS OF LIQUID FROM SUBSTRATES DURING SINGLE-SUBSTRATE PROCESSING	United States of America		Abandoned	3-Nov-05	11266402		
APPARATUS FOR CARRYING RETICLES AND METHOD OF USING THE SAME TO PROCESS RETICLES	United States of America		Abandoned	1-Sep-04	10931441		
APPARATUS, SYSTEM AND METHOD FOR PROCESSING A SUBSTRATE THAT PROHIBITS AIR FLOW CONTAINING CONTAMINANTS AND/OR RESIDUES FROM DEPOSITING ON THE SUBSTRATE	United States of America		Abandoned	12-Jul-07	11777258		
COMPOSITE TRANSDUCER APPARATUS AND SYSTEM FOR PROCESSING A SUBSTRATE AND METHOD OF CONSTRUCTING THE SAME	United States of America		Abandoned	2-Oct-12	13633662		
MEGASONIC CLEANER AND DRYER	United States of America		Abandoned	10-Jun-04	10865440		
MEGASONIC CLEANER AND DRYER SYSTEM	United States of America		Abandoned	12-Jun-02	10171494		
MEGASONIC CLEANING APPARATUS	United States of America		Abandoned	16-Nov-88	7272501		
MEGASONIC CLEANING SYSTEM WITH BUFFERED CAVITATION METHOD	United States of America		Abandoned	18-Jul-06	11489059		
METHOD AND APPARATUS FOR CREATING OZONATED PROCESS SOLUTIONS HAVING HIGH OZONE CONCENTRATION	United States of America		Abandoned	8-Jul-05	11177147		
METHOD AND SYSTEM FOR PROCESSING SUBSTRATES WITH	United States of America		Abandoned	8-Mar-06	11370361		

Patent	Jurisdiction	Docket No.	Status	App Date	App. No	Grant Date	Grant No.
SONIC ENERGY THAT REDUCES OR ELIMINATES DAMAGE TO SEMICONDUCTOR DEVICES							
METHOD AND SYSTEM FOR PROCESSING SUBSTRATES WITH SONIC ENERGY THAT REDUCES OR ELIMINATES DAMAGE TO SEMICONDUCTOR DEVICES	United States of America		Abandoned	8-Mar-06	11370707		
METHOD FOR SELECTIVE UNDER-ETCHING OF POROUS SILICON	United States of America		Abandoned	24-Mar-15	14667157		
METHOD OF APPLYING LIQUID TO A MEGASONIC APPARATUS FOR IMPROVED CLEANING CONTROL	United States of America		Abandoned	12-Jun-02	10171431		
METHOD OF PRIMING AND DRYING SUBSTRATES	United States of America		Abandoned	22-Apr-11	13092661		
PROCESS SEQUENCE FOR PHOTORESIST STRIPPING AND CLEANING OF PHOTOMASKS FOR INTEGRATED CIRCUIT MANUFACTURING	United States of America		Abandoned	4-Jan-07	11649535		
RECIPROCATING MEGASONIC PROBE	United States of America		Abandoned	18-Dec-06	11640718		
REDUCED PRESSURE IRRADIATION PROCESSING METHOD AND APPARATUS	United States of America		Abandoned	11-Jul-05	11178923		
SYSTEM AND METHOD FOR PRE- GATE CLEANING OF SUBSTRATES	United States of America		Abandoned	7-Jul-05	11176406		
SYSTEM AND METHOD FOR PROCESSING A SUBSTRATE UTILIZING A GAS STREAM FOR PARTICLE REMOVAL	United States of America		Abandoned	20-Aug-07	11841427		
SYSTEM AND METHOD OF CLEANING SUBSTRATES USING A	United States of America		Abandoned	6-Oct-06	11544802		



Patent	Jurisdiction	Docket No.	Status	App Date	App. No	Grant Date	Grant No.
SUBAMBIENT PROCESS SOLUTION							
SYSTEM AND METHOD OF POWERING A SONIC ENERGY SOURCE AND USE OF THE SAME TO PROCESS SUBSTRATES	United States of America		Abandoned	15-Sep-05	11227705		
SYSTEM AND METHOD OF PROCESSING SUBSTRATES USING SONIC ENERGY HAVING CAVITATION CONTROL	United States of America		Abandoned	15-Jun-06	11454447		
SYSTEM APPARATUS AND METHODS FOR PROCESSING SUBSTRATES USING ACOUSTIC ENERGY	United States of America		Abandoned	22-Jan-07	11625651		
TRANSDUCER ASSEMBLY INCORPORATING A TRANSMITTER HAVING THROUGH HOLES, AND METHOD AND SYSTEM FOR CLEANING A SUBSTRATE UTILIZING THE SAME	United States of America		Abandoned	12-Jul-07	11777252		