

05-21-2004



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Form PTO-1595  
(Rev. 03/01)

OMB No. 0651-0027 (exp. 5/31/2002)

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**PATENTS ONLY**U.S. DEPARTMENT OF COMMERCE  
U.S. Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

AKRION LLC

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

- ☐ Assignment ☐ Merger
- ☒ Security Agreement ☐ Change of Name
- ☐ Other \_\_\_\_\_

Execution Date: 4/28/04

## 2. Name and address of receiving party(ies)

Name: ORIX VENTURE FINANCE LLC

Internal Address: 10th Floor

Street Address: 1177 Avenue of the Americas

City: New York State: NY Zip: 10036

Additional name(s) & address(es) attached? ☐ Yes ☒ No

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s) 10/117,768

B. Patent No.(s) 6532974

Additional numbers attached? ☒ Yes ☐ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Federal Research Corporation

Internal Address: Attn: Penelope Agodoa

Street Address: 1030 15th Street, NW

Suite 920

City: Washington State: DC Zip: 20005

## 6. Total number of applications and patents involved: 28

7. Total fee (37 CFR 3.41).....\$ 1,120.00

- ☒ Enclosed
- ☐ Authorized to be charged to deposit account

## 8. Deposit account number:

**DO NOT USE THIS SPACE**

## 9. Signature.

Wendy Ballot Huey

Name of Person Signing

Wendy Ballot Huey

Signature

May 20, 2004

Date

Total number of pages including cover sheet, attachments, and documents: 12

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments

Washington, D.C. 20231

05/24/2004 ECOOPER 00000055 10117768

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**PATENT**

**REEL: 015348 FRAME: 0313**

**SCHEDULE B TO AKRION INTELLECTUAL PROPERTY SECURITY AGREEMENT**  
**WITH ORIX VENTURE FINANCE LLC**

**Patents**

<b><u>TITLE</u></b>	<b><u>COUNTRY</u></b>	<b><u>PATENT OR PUBL. NO.</u></b>	<b><u>ISSUE OR PUBL. DATE</u></b>	<b><u>SERIAL NO.</u></b>	<b><u>FILING DATE</u></b>	<b><u>STATUS/ EXPIRATION DATE*</u></b>
Process Tank With Pressurized Mist Generation	US	6532974	Mar 18, 2003	10/117,768	Apr. 5, 2002	Issued/ Apr. 5, 2022
Industrial Robot Safety Device That Shuts Down Operation In Response To Variation In Tension Of Rope	US	5807408	Sep. 15, 1998	08/851,668	May 6, 1997	Issued/ May 6, 2017
Megasonic Cleaning System	US	5625249	Apr. 29, 1997	08/277,792	Jul. 20, 1994	Issued/ Jul. 20, 2014
Process for Etching Oxide Films	US	5,324,540	June 28, 1994	07/876,043	April 30, 1992	Issued
Megasonic Cleaning System	US	5247954	Sep. 28, 1993	07/791,094	Nov. 12, 1992	Issued/ Nov. 12, 2012
Wafer Carrier Holder For Wafer Carriers	US	5100190	Mar. 31, 1992	07/438,024	Nov. 20, 1989	Issued/ Nov. 20, 2009
Particle Barrier Drain	US	2002/0078978	Jun. 27, 2002	10/014,121	Dec. 11, 2001	Allowed/
Drying Vapor Generation	US	2002/0129513	Sep. 19, 2002	10/098,847	Mar. 15, 2002	Allowed & issue fee paid/
Megazone System	US	6,626,189	Sept. 30, 2003	10/304583	Nov. 25, 2002	Issued
Method And System For Chemical Injection In Silicon Wafer Processing	US			10/053,364	Jan. 18, 2002	Pending/
Nextgen Wet Process Tank	US	2002/0144709	Oct. 10, 2002	10/1177,778	Apr. 5, 2002	Pending/
Chemical Concentration Control Device	US	2002/0144727	Oct. 10, 2002	10/117,725	Apr. 5, 2002	Pending/
Membrane Dryer	US			10/117,739	Apr. 5, 2002	Pending/

\* Expiration dates are calculated according to 35 USC § 154, and are subject to the payment of periodic maintenance fees.

<u>TITLE</u>	<u>COUNTRY</u>	<u>PATENT OR PUBL. NO.</u>	<u>ISSUE OR PUBL. DATE</u>	<u>SERIAL NO.</u>	<u>FILING DATE</u>	<u>STATUS/ EXPIRATION DATE*</u>
Low Profile Wafer Carrier	US			10/053,449	Jan. 17, 2002	Pending/
Process And Apparatus For Removal Of Photoresist From Semiconductor Wafers Using Spray Nozzles	US			10/366,054	Feb. 13, 2003	Pending/
Process And Apparatus For Removal Of Photoresist From Semiconductor Wafers	PCT			PCT/US/03/01 668	Jan. 20, 2003	Pending/
Process And Apparatus For Removing Photoresist Using Sparger	US	6,649,018	Nov. 18, 2003	10/052,823	Jan. 17, 2002	Issued/
Process And Apparatus For Removing Photoresist Using Sparger	US			10/634,440	Aug. 5, 2003	Divisional Pending
Method And Apparatus For Removing Photoresist Using Sparger	PCT			PCT/US03/01 58	Jan. 16, 2003	Pending/
Cleaning And Drying Method And Apparatus	US	2003/0019907	Jan. 30, 2003	10/091,011	Mar. 4, 2002	Pending/
Capillary Drying Of Substrates	US			10/358,636	Feb. 5, 2003	Pending/
Capillary Drying Of Substrates	PCT			PCT/US03/03 561	Feb. 5, 2003	Pending/
Automation Design for Cassette-less transfer of Silicon Wafers	PCT			PCT/US03/18 384	June 9, 2003	Pending

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<u>TITLE</u>	<u>COUNTRY</u>	<u>PATENT OR PUBL. NO.</u>	<u>ISSUE OR PUBL. DATE</u>	<u>SERIAL NO.</u>	<u>FILING DATE</u>	<u>STATUS/ EXPIRATION DATE*</u>
Substrate Process Tank with Acoustical Source of Transmission and Method of Processing Substrates	US			10/688,042	Oct. 31, 2003	Pending
Apparatus for Filtration and Purification of the Process/Rinse Fluid to the Acceptable Levels	US			60/489,059	July 21, 2003	Provisional. Must be filed as Non-Provisional by 7/21/04
Process Sequence for Photoresist and Cleaning of Photomasks for IC Manufacturing	US			60/491,607	July 31, 2003	Provisional – Must be filed as Non-Provisional by 7/31/04
Reticle Cleaning Carrier	US			60/500,856	Sept. 5, 2003	Provisional – Must be filed as Non-Provisional by 9/5/04
High Selectivity Nitride Etch	US			60/533,097	Dec. 30, 2003	Provisional - Must be filed as Non-Provisional by 12/30/04

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05/20/04

# INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement is entered into as of **April 28, 2004** by and between ORIX Venture Finance LLC ("ORIX") and Akzion LLC, a Delaware limited liability company ("Grantor"), with reference to the following facts:

A. ORIX and Grantor are parties to that certain Loan and Security Agreement dated April 28, 2004 (as amended from time to time, the "Loan Agreement"). (Capitalized terms used herein have the meaning assigned in the Loan Agreement.)

B. Pursuant to the Loan Agreement, Grantor has granted to ORIX a security interest in all of the Collateral. The Collateral includes without limitation all Intellectual Property (including without limitation the Intellectual Property described herein).

Grantor agrees as follows:

1. To secure performance of all of its "Obligations" as defined in the Loan Agreement, Grantor grants to ORIX a security interest in all of Grantor's right, title and interest in Grantor's Intellectual Property, including without limitation (i) the trademarks and servicemarks listed on Schedule A hereto, whether registered or not, and all applications to register and registrations of the same and like protections, and the entire goodwill of the business of Borrower connected with and symbolized by such trademarks, and (ii) the patents and patent applications listed on Schedule B hereto and all like protections including, without limitation, all improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same, and (iii) all copyrights, maskworks, software, computer programs and other works of authorship listed on Schedule C hereto, and all extensions and renewals thereof, and (iv) all rights to recover for past or future infringement of any of the foregoing, and (v) all right, title and interest in and to any and all present and future license agreements with respect to any of the foregoing, and (vi) all present and future accounts, accounts receivable and other rights to payment arising from, in connection with or relating to any of the foregoing.

2. Grantor represents and warrants that (i) listed on Schedule A hereto are all trademark registrations and pending registrations owned or controlled by Grantor or licensed to Grantor, (ii) listed on Schedule B are all patents and patent applications owned or controlled by Grantor or licensed to Grantor, and (iii) listed on Schedule C are all copyrights, software, computer programs, mask works, and other works of authorship owned or controlled by Grantor which are registered with the United States Copyright Office. (The phrase "controlled by" in the foregoing sentence shall not refer to any of the foregoing owned by Grantor's wholly-owned subsidiary, Goldfinger Technologies LLC, which is concurrently executing and delivering to ORIX a separate Intellectual Property Security Agreement.)

3. Grantor shall not, hereafter, register any maskworks, software, computer programs or other works of authorship subject to United States copyright protection with the United States Copyright Office without first complying with the following: (i) providing Secured Party with at least 15 days prior written notice thereof, (ii) providing Secured Party with a copy of the application for any such registration and (iii) executing and filing such other instruments, and taking such further actions as Secured Party may reasonably request from time to time to perfect or continue the perfection of Secured Party's interest in the Collateral, including without limitation the filing with the United States Copyright

Office, simultaneously with the filing by Grantor of the application for any such registration, of a copy of this Agreement or a Supplement hereto in form acceptable to Secured Party identifying the maskworks, software, computer programs or other works of authorship being registered and confirming the grant of a security interest therein in favor of Secured Party.

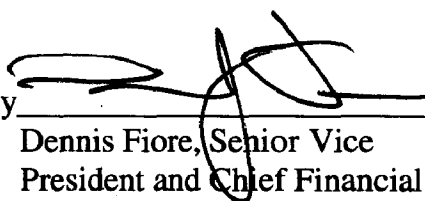
4. This Agreement is being executed and delivered pursuant to the Loan Agreement; nothing herein limits any of the terms or provisions of the Loan Agreement, and ORIX's rights hereunder and under the Loan Agreement are cumulative. This Agreement, the Loan Agreement and the other Loan Documents set forth in full all of the representations and agreements of the parties with respect to the subject matter hereof and supersede all prior discussions, oral representations, oral agreements and oral understandings between the parties. This Agreement may not be modified or amended, nor may any rights hereunder be waived, except in a writing signed by the parties hereto. In the event of any litigation between the parties based upon, arising out of, or in any way relating to this Agreement, the prevailing party shall be entitled to recover all of his costs and expenses (including without limitation attorneys' fees) from the non-prevailing party. This Agreement and all acts, transactions, disputes and controversies arising hereunder or relating hereto, and all rights and obligations of ORIX and Grantor shall be governed by, and construed in accordance with the internal laws (and not the conflict of laws rules) of the State of California.

Address of Grantor:

Akrion LLC

6330 Hedgewood Drive, Suite 150  
Allentown, Pennsylvania 18106

By


  
Dennis Fiore, Senior Vice  
President and Chief Financial  
Officer

Address of ORIX:

ORIX Venture Finance LLC

1177 Avenue of the Americas, 10th Floor  
New York, NY 10036

By

  
Kevin P. Sheehan,  
President and CEO

Form: Version-1

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Office, simultaneously with the filing by Grantor of the application for any such registration, of a copy of this Agreement or a Supplement hereto in form acceptable to Secured Party identifying the maskworks, software, computer programs or other works of authorship being registered and confirming the grant of a security interest therein in favor of Secured Party.

4. This Agreement is being executed and delivered pursuant to the Loan Agreement; nothing herein limits any of the terms or provisions of the Loan Agreement, and ORIX's rights hereunder and under the Loan Agreement are cumulative. This Agreement, the Loan Agreement and the other Loan Documents set forth in full all of the representations and agreements of the parties with respect to the subject matter hereof and supersede all prior discussions, oral representations, oral agreements and oral understandings between the parties. This Agreement may not be modified or amended, nor may any rights hereunder be waived, except in a writing signed by the parties hereto. In the event of any litigation between the parties based upon, arising out of, or in any way relating to this Agreement, the prevailing party shall be entitled to recover all of his costs and expenses (including without limitation attorneys' fees) from the non-prevailing party. This Agreement and all acts, transactions, disputes and controversies arising hereunder or relating hereto, and all rights and obligations of ORIX and Grantor shall be governed by, and construed in accordance with the internal laws (and not the conflict of laws rules) of the State of California.

Address of Grantor:

Akrion, LLC


6330 Hedgewood Drive, Suite 150  
Allentown, Pennsylvania 18106

By \_\_\_\_\_  
Title \_\_\_\_\_

Address of ORIX:

ORIX Venture Finance LLC

1177 Avenue of the Americas, 10th Floor  
New York, NY 10036

By   
Kevin P. Sheehan,  
President and CEO

**SCHEDULE A TO AKRION INTELLECTUAL PROPERTY SECURITY AGREEMENT WITH**  
**ORIX VENTURE FINANCE LLC**

**Trademarks**

<b>Trademark</b>	<b>Owner</b>	<b>Application Number</b>	<b>Registration Number</b>	<b>Status</b>
AKRION	Akrion, LLC	78/122937	2691082	Registered
AKROS	Akrion, LLC	78/052062		Allowed
G300	Akrion, LLC	78/224076		Allowed
GAMA300	Akrion, LLC	78/052089		Allowed
LUCID 2	Akrion, LLC	78/224085		Allowed
MEGAZONE	Akrion, LLC	78/074947		Allowed
SUBMICRON	Akrion, LLC	75/101715	2106537	Registered
SUBMICRON	Akrion, LLC	73/817473	1598327	Registered
SUBMICRON Stylized	Akrion, LLC	75/088869	2057179	Registered



**SCHEDULE B TO AKRION INTELLECTUAL PROPERTY SECURITY AGREEMENT**  
**WITH ORIX VENTURE FINANCE LLC**

**Patents**

<b><u>TITLE</u></b>	<b><u>COUNTRY</u></b>	<b><u>PATENT OR PUBL. NO.</u></b>	<b><u>ISSUE OR PUBL. DATE</u></b>	<b><u>SERIAL NO.</u></b>	<b><u>FILING DATE</u></b>	<b><u>STATUS/ EXPIRATION DATE*</u></b>
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Membrane Dryer	US			10/117,739	Apr. 5, 2002	Pending/

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Process And Apparatus For Removal Of Photoresist From Semiconductor Wafers	PCT			PCT/US/03/01 668	Jan. 20, 2003	Pending/
Process And Apparatus For Removing Photoresist Using Sparger	US	6,649,018	Nov. 18, 2003	10/052,823	Jan. 17, 2002	Issued/
Process And Apparatus For Removing Photoresist Using Sparger	US			10/634,440	Aug. 5, 2003	Divisional Pending
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Cleaning And Drying Method And Apparatus	US	2003/0019907	Jan. 30, 2003	10/091,011	Mar. 4, 2002	Pending/
Capillary Drying Of Substrates	US			10/358,636	Feb. 5, 2003	Pending/
Capillary Drying Of Substrates	PCT			PCT/US03/03 561	Feb. 5, 2003	Pending/
Automation Design for Cassette-less transfer of Silicon Wafers	PCT			PCT/US03/18 384	June 9, 2003	Pending

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**PATENT**  
**REEL: 015348 FRAME: 0322**

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**SCHEDULE C TO AKRION INTELLECTUAL PROPERTY SECURITY AGREEMENT**  
**WITH ORIX VENTURE FINANCE LLC**

**Copyrights**

<u>Description</u>	<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>
None		