

08-18-2000



Attorney Docket No: S98-164

101436260 EET
FOR ASSIGNMENT OF PATENT

7-24-00

Commissioner of Patents and Trademarks:

Please record the enclosed copy of an assignment document. Relevant assignment data are as follows:

1. Assignors:

Robert g. Batchko
Escondido Village, Apt. 34-B
Stanford, CA 94305

Gregory D. Miller
320 Boelega Street
Foster City, CA 94404

Robert L. Byer
891 Allardice Way
Stanford, CA 94305

Vladimir Shur
8 Marta Str., #2, Apt. 22
Russia

Martin M. Fejer
120 E. Creek Drive #9
Menlo Park, CA 94025

2. Assignee:

The Board of Trustees of the Leland Stanford Junior University
Office of Technology Licensing
900 Welch Road, Suite 350
Palo Alto, CA 94304

3. Execution Date of Assignment of Entire Interest in Patent Application: **7 July 2000**

4. Execution Date of Declaration for Patent Application: **7 July 2000**

4A. Patent Application No.: **09/493,647**

4B. Patent Number:

5. Correspondence address: **Joshua D. Isenberg**
LUMEN
45 Cabot Avenue, Suite 110
Santa Clara, CA 95051

6. Total Number of applications and Patents involved: **1**

7. Total fee (37 CFR 3.41): **\$40**

8. Statement and signature:

To the best of my knowledge and belief, the information contained herein is true and correct, and any attached copy is a true copy of the original document.

Joshua D. Isenberg
Reg. No. 41,088

Date: **7/18/2000**
telephone: (650) 321-6630

Total number of pages including cover sheet, attachments, and document: **11**

07/25/2000 JAD/D01 00000002 09493647 40.00 DP
01 FC:581

PATENT
REEL: 010997 FRAME: 0394

ASSIGNMENT

THIS ASSIGNMENT, by

ROBERT G. BATCHKO

(hereinafter referred to as the Assignor), residing at **Stanford, California** witnesseth:

WHEREAS, said Assignor has invented certain new and useful improvements in

**BACKSWITCH POLING METHOD FOR DOMAIN PATTERNING OF
FERRO-ELECTRIC MATERIALS**

for which application no. 09/493,647 for Letters Patent filed 1/28/00

WHEREAS,

The Board of Trustees of the Leland Stanford Junior University

(hereinafter referred to as the Assignee), a body having corporate powers under the laws of the state of **CALIFORNIA, STANFORD, CALIFORNIA 94305**, is desirous of obtaining the entire right, title and interest in and to said inventions and said application for Letters Patent, and in and to any Letters Patent, United States or foreign, to be obtained therefor and thereon;

WHEREAS, said Assignor and said Assignee have executed an agreement entitled "Agreement Concerning Rights in Invention."

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) and for other good and sufficient considerations, the receipt of which is hereby acknowledged:

1. The Assignor has sold, assigned, transferred and set over, and does hereby sell, assign, transfer and set over unto said Assignee, the entire right, title and interest in, to and under: said inventions; said application for Letters Patent; any Letters Patent which may be granted for said inventions in the United States of America and any foreign country; any division of said application, continuation of said application, and any continuation-in-part of said application which is subject to said agreement concerning rights in invention; any reissue or extension of said Letters Patent; and all rights under the International Convention for the Protection of Industrial Property; said right, title and interest to be held and enjoyed by said Assignee for its own use and behoove to the full end of the term for which Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by the Assignors, had this sale and assignment not been made.
2. Said Assignor hereby warrants and represents that, at the time of execution and delivery of these presents, said Assignor is the sole and lawful owner of the entire right, title and interest in and to said inventions and said application for Letters Patent, and that the same have not entered into any assignment, contract or understanding in conflict herewith.
3. Said Assignor hereby covenants and agrees to assist and cooperate with said Assignee, whereby said Assignee may enjoy to the fullest extent said right, title and interest herein conveyed, provided, however, that the entire expense which may be incurred by said Assignors in lending such assistance and cooperation be paid by Assignee. Such cooperation shall include: (a) prompt execution of all papers (prepared at the expense of Assignee) which are deemed necessary or desirable by Assignee to perfect said right, title and interest herein conveyed, (b) prompt execution of all petitions, oaths, specifications, declarations and other papers (prepared at the expense of

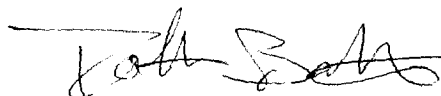

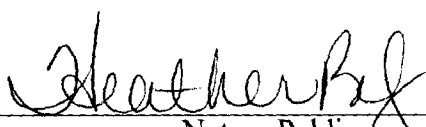
Assignee) which are deemed necessary or desirable by Assignee for filing or prosecuting in the United States or any foreign country said application, any application which is a division of said application, continuation of said application, and any continuation-in-part of said application which is subject to said agreement concerning rights in invention, any reissue application for any Letters Patent granted on said application, or for any interference proceeding involving said application or Letters Patent granted thereon; and (c) prompt assistance and cooperation in the prosecution of all legal proceedings involving said inventions, said application, or Letters Patent granted thereon, including oppositions, cancellation proceedings, priority contests, public use proceedings and court actions.

4. The terms, covenants and conditions of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and/or other legal representatives, and shall be binding upon said Assignor, his heirs, legal representatives and assigns.

5. The terms, covenants and conditions of this Assignment are subject to the payment of royalty by Assignee to Assignor in accordance with the provisions of said Agreement Concerning Rights in Invention.

6. Said Assignor hereby requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States to said Assignee as the assignee of said inventions.

IN WITNESS WHEREOF said Assignor has executed and delivered this instrument on the respective dates noted below.

Date: <u>7/5/00</u>	<u></u> Robert G. Batchko
State: <u>California</u>	County: <u>Santa Clara</u>
Subscribed and sworn to before me on this <u>5</u> day of <u>July</u> , <u>19</u> 9 <u>2000</u>	
	<u></u> Notary Public

ASSIGNMENT

THIS ASSIGNMENT, by

GREGORY D. MILLER

(hereinafter referred to as the Assignor), residing at **Foster City, California** witnesseth:

WHEREAS, said Assignor has invented certain new and useful improvements in

**BACKSWITCH POLING METHOD FOR DOMAIN PATTERNING OF
FERRO-ELECTRIC MATERIALS**

for which application no. 09/493,647 for Letters Patent filed 1/28/00

WHEREAS,

The Board of Trustees of the Leland Stanford Junior University

(hereinafter referred to as the Assignee), a body having corporate powers under the laws of the state of **CALIFORNIA, STANFORD, CALIFORNIA 94305**, is desirous of obtaining the entire right, title and interest in and to said inventions and said application for Letters Patent, and in and to any Letters Patent, United States or foreign, to be obtained therefor and thereon;

WHEREAS, said Assignor and said Assignee have executed an agreement entitled "Agreement Concerning Rights in Invention."

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) and for other good and sufficient considerations, the receipt of which is hereby acknowledged:

1. The Assignor has sold, assigned, transferred and set over, and does hereby sell, assign, transfer and set over unto said Assignee, the entire right, title and interest in, to and under: said inventions; said application for Letters Patent; any Letters Patent which may be granted for said inventions in the United States of America and any foreign country; any division of said application, continuation of said application, and any continuation-in-part of said application which is subject to said agreement concerning rights in invention; any reissue or extension of said Letters Patent; and all rights under the International Convention for the Protection of Industrial Property; said right, title and interest to be held and enjoyed by said Assignee for its own use and behoove to the full end of the term for which Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by the Assignors, had this sale and assignment not been made.
2. Said Assignor hereby warrants and represents that, at the time of execution and delivery of these presents, said Assignor is the sole and lawful owner of the entire right, title and interest in and to said inventions and said application for Letters Patent, and that the same have not entered into any assignment, contract or understanding in conflict herewith.
3. Said Assignor hereby covenants and agrees to assist and cooperate with said Assignee, whereby said Assignee may enjoy to the fullest extent said right, title and interest herein conveyed, provided, however, that the entire expense which may be incurred by said Assignors in lending such assistance and cooperation be paid by Assignee. Such cooperation shall include: (a) prompt execution of all papers (prepared at the expense of Assignee) which are deemed necessary or desirable by Assignee to perfect said right, title and interest herein conveyed, (b) prompt execution of all petitions, oaths, specifications, declarations and other papers (prepared at the expense of

Assignee) which are deemed necessary or desirable by Assignee for filing or prosecuting in the United States or any foreign country said application, any application which is a division of said application, continuation of said application, and any continuation-in-part of said application which is subject to said agreement concerning rights in invention, any reissue application for any Letters Patent granted on said application, or for any interference proceeding involving said application or Letters Patent granted thereon; and (c) prompt assistance and cooperation in the prosecution of all legal proceedings involving said inventions, said application, or Letters Patent granted thereon, including oppositions, cancellation proceedings, priority contests, public use proceedings and court actions.

4. The terms, covenants and conditions of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and/or other legal representatives, and shall be binding upon said Assignor, his heirs, legal representatives and assigns.

5. The terms, covenants and conditions of this Assignment are subject to the payment of royalty by Assignee to Assignor in accordance with the provisions of said Agreement Concerning Rights in Invention.

6. Said Assignor hereby requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States to said Assignee as the assignee of said inventions.

IN WITNESS WHEREOF said Assignor has executed and delivered this instrument on the respective dates noted below.

Date: July 6, 2000

Gregory D. Miller
Gregory D. Miller

State: California County: SANTA CLARA

Subscribed and sworn to before me on this 6 day of July, 19 2000



Heather Bedy
Notary Public

ASSIGNMENT

THIS ASSIGNMENT, by

ROBERT L. BYER

(hereinafter referred to as the Assignor), residing at **Stanford, California** witnesseth:

WHEREAS, said Assignor has invented certain new and useful improvements in

**BACKSWITCH POLING METHOD FOR DOMAIN PATTERNING OF
FERRO-ELECTRIC MATERIALS**

for which application no. 09/493,647 for Letters Patent filed 1/28/00

WHEREAS,

The Board of Trustees of the Leland Stanford Junior University

(hereinafter referred to as the Assignee), a body having corporate powers under the laws of the state of **CALIFORNIA, STANFORD, CALIFORNIA 94305**, is desirous of obtaining the entire right, title and interest in and to said inventions and said application for Letters Patent, and in and to any Letters Patent, United States or foreign, to be obtained therefor and thereon;

WHEREAS, said Assignor and said Assignee have executed an agreement entitled "Agreement Concerning Rights in Invention."

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) and for other good and sufficient considerations, the receipt of which is hereby acknowledged:

1. The Assignor has sold, assigned, transferred and set over, and does hereby sell, assign, transfer and set over unto said Assignee, the entire right, title and interest in, to and under: said inventions; said application for Letters Patent; any Letters Patent which may be granted for said inventions in the United States of America and any foreign country; any division of said application, continuation of said application, and any continuation-in-part of said application which is subject to said agreement concerning rights in invention; any reissue or extension of said Letters Patent; and all rights under the International Convention for the Protection of Industrial Property; said right, title and interest to be held and enjoyed by said Assignee for its own use and behoove to the full end of the term for which Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by the Assignors, had this sale and assignment not been made.

2. Said Assignor hereby warrants and represents that, at the time of execution and delivery of these presents, said Assignor is the sole and lawful owner of the entire right, title and interest in and to said inventions and said application for Letters Patent, and that the same have not entered into any assignment, contract or understanding in conflict herewith.

3. Said Assignor hereby covenants and agrees to assist and cooperate with said Assignee, whereby said Assignee may enjoy to the fullest extent said right, title and interest herein conveyed, provided, however, that the entire expense which may be incurred by said Assignors in lending such assistance and cooperation be paid by Assignee. Such cooperation shall include: (a) prompt execution of all papers (prepared at the expense of Assignee) which are deemed necessary or desirable by Assignee to perfect said right, title and interest herein conveyed, (b) prompt execution of all petitions, oaths, specifications, declarations and other papers (prepared at the expense of

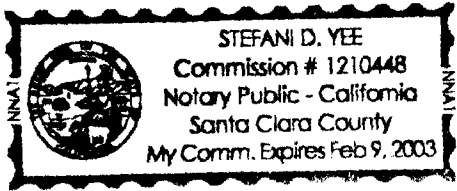
Assignee) which are deemed necessary or desirable by Assignee for filing or prosecuting in the United States or any foreign country said application, any application which is a division of said application, continuation of said application, and any continuation-in-part of said application which is subject to said agreement concerning rights in invention, any reissue application for any Letters Patent granted on said application, or for any interference proceeding involving said application or Letters Patent granted thereon; and (c) prompt assistance and cooperation in the prosecution of all legal proceedings involving said inventions, said application, or Letters Patent granted thereon, including oppositions, cancellation proceedings, priority contests, public use proceedings and court actions.

4. The terms, covenants and conditions of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and/or other legal representatives, and shall be binding upon said Assignor, his heirs, legal representatives and assigns.

5. The terms, covenants and conditions of this Assignment are subject to the payment of royalty by Assignee to Assignor in accordance with the provisions of said Agreement Concerning Rights in Invention.

6. Said Assignor hereby requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States to said Assignee as the assignee of said inventions.

IN WITNESS WHEREOF said Assignor has executed and delivered this instrument on the respective dates noted below.

Date: <u>4/18/2000</u>	<u>Robert L. Byer</u> Robert L. Byer
State: <u>CA</u>	County: <u>Santa Clara</u>
Subscribed and sworn to before me on this <u>18</u> day of <u>April</u> , <u>2000</u>	
<div data-bbox="94 1186 548 1375"></div> <div data-bbox="711 1312 1274 1440"><u>Stefani D. Yee</u> Notary Public</div>	

ASSIGNMENT

THIS ASSIGNMENT, by

VLADIMIR SHUR

(hereinafter referred to as the Assignor), residing at Ekaterinburg, Russia
witnesseth:

WHEREAS, said Assignor has invented certain new and useful improvements in

**BACKSWITCH POLING METHOD FOR DOMAIN PATTERNING OF
FERRO-ELECTRIC MATERIALS**

for which application no. 09/493,647 for Letters Patent filed 1/28/00

WHEREAS,

The Board of Trustees of the Leland Stanford Junior University

(hereinafter referred to as the Assignee), a body having corporate powers under the laws of the state of **CALIFORNIA, STANFORD, CALIFORNIA 94305**, is desirous of obtaining the entire right, title and interest in and to said inventions and said application for Letters Patent, and in and to any Letters Patent, United States or foreign, to be obtained therefor and thereon;

WHEREAS, said Assignor and said Assignee have executed an agreement entitled "Agreement Concerning Rights in Invention."

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) and for other good and sufficient considerations, the receipt of which is hereby acknowledged:

1. The Assignor has sold, assigned, transferred and set over, and does hereby sell, assign, transfer and set over unto said Assignee, the entire right, title and interest in, to and under: said inventions; said application for Letters Patent; any Letters Patent which may be granted for said inventions in the United States of America and any foreign country; any division of said application, continuation of said application, and any continuation-in-part of said application which is subject to said agreement concerning rights in invention; any reissue or extension of said Letters Patent; and all rights under the International Convention for the Protection of Industrial Property; said right, title and interest to be held and enjoyed by said Assignee for its own use and behoove to the full end of the term for which Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by the Assignors, had this sale and assignment not been made.

2. Said Assignor hereby warrants and represents that, at the time of execution and delivery of these presents, said Assignor is the sole and lawful owner of the entire right, title and interest in and to said inventions and said application for Letters Patent, and that the same have not entered into any assignment, contract or understanding in conflict herewith.

3. Said Assignor hereby covenants and agrees to assist and cooperate with said Assignee, whereby said Assignee may enjoy to the fullest extent said right, title and interest herein conveyed, provided, however, that the entire expense which may be incurred by said Assignors in lending such assistance and cooperation be paid by Assignee. Such cooperation shall include: (a) prompt execution of all papers (prepared at the expense of Assignee) which are deemed necessary or desirable by Assignee to perfect said right, title and interest herein conveyed, (b) prompt execution


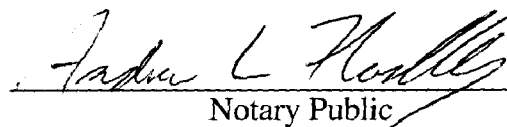
of all petitions, oaths, specifications, declarations and other papers (prepared at the expense of Assignee) which are deemed necessary or desirable by Assignee for filing or prosecuting in the United States or any foreign country said application, any application which is a division of said application, continuation of said application, and any continuation-in-part of said application which is subject to said agreement concerning rights in invention, any reissue application for any Letters Patent granted on said application, or for any interference proceeding involving said application or Letters Patent granted thereon; and (c) prompt assistance and cooperation in the prosecution of all legal proceedings involving said inventions, said application, or Letters Patent granted thereon, including oppositions, cancellation proceedings, priority contests, public use proceedings and court actions.

4. The terms, covenants and conditions of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and/or other legal representatives, and shall be binding upon said Assignor, his heirs, legal representatives and assigns.

5. The terms, covenants and conditions of this Assignment are subject to the payment of royalty by Assignee to Assignor in accordance with the provisions of said Agreement Concerning Rights in Invention.

6. Said Assignor hereby requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States to said Assignee as the assignee of said inventions.

IN WITNESS WHEREOF said Assignor has executed and delivered this instrument on the respective dates noted below.

Date: <u>July 7, 2000</u>	 Vladimir Shur
State: _____ County: _____	
Subscribed and sworn to before me on this <u>7th</u> day of <u>JULY</u> , <u>2000</u>	
Russian Federation) (Country)) Sverdlovsk Oblast) (State, province, etc.)) Yekaterinburg) ss. (City)) Consulate General of the) United States of America) (Name of consular post))	 Notary Public

Andrew L. Flashberg
Vice Consul

ASSIGNMENT

THIS ASSIGNMENT, by

MARTIN M. FEJER

(hereinafter referred to as the Assignor), residing at **Menlo Park, California** witnesseth:

WHEREAS, said Assignor has invented certain new and useful improvements in

**BACKSWITCH POLING METHOD FOR DOMAIN PATTERNING OF
FERRO-ELECTRIC MATERIALS**

for which application no. 09/493,647 for Letters Patent filed 1/28/00

WHEREAS,

The Board of Trustees of the Leland Stanford Junior University

(hereinafter referred to as the Assignee), a body having corporate powers under the laws of the state of **CALIFORNIA, STANFORD, CALIFORNIA 94305**, is desirous of obtaining the entire right, title and interest in and to said inventions and said application for Letters Patent, and in and to any Letters Patent, United States or foreign, to be obtained therefor and thereon;

WHEREAS, said Assignor and said Assignee have executed an agreement entitled "Agreement Concerning Rights in Invention."

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) and for other good and sufficient considerations, the receipt of which is hereby acknowledged:

1. The Assignor has sold, assigned, transferred and set over, and does hereby sell, assign, transfer and set over unto said Assignee, the entire right, title and interest in, to and under: said inventions; said application for Letters Patent; any Letters Patent which may be granted for said inventions in the United States of America and any foreign country; any division of said application, continuation of said application, and any continuation-in-part of said application which is subject to said agreement concerning rights in invention; any reissue or extension of said Letters Patent; and all rights under the International Convention for the Protection of Industrial Property; said right, title and interest to be held and enjoyed by said Assignee for its own use and behoove to the full end of the term for which Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by the Assignors, had this sale and assignment not been made.
2. Said Assignor hereby warrants and represents that, at the time of execution and delivery of these presents, said Assignor is the sole and lawful owner of the entire right, title and interest in and to said inventions and said application for Letters Patent, and that the same have not entered into any assignment, contract or understanding in conflict herewith.
3. Said Assignor hereby covenants and agrees to assist and cooperate with said Assignee, whereby said Assignee may enjoy to the fullest extent said right, title and interest herein conveyed, provided, however, that the entire expense which may be incurred by said Assignors in lending such assistance and cooperation be paid by Assignee. Such cooperation shall include: (a) prompt execution of all papers (prepared at the expense of Assignee) which are deemed necessary or desirable by Assignee to perfect said right, title and interest herein conveyed, (b) prompt execution of all petitions, oaths, specifications, declarations and other papers (prepared at the expense of

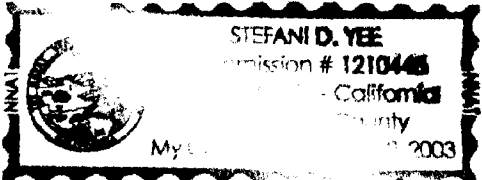
Assignee) which are deemed necessary or desirable by Assignee for filing or prosecuting in the United States or any foreign country said application, any application which is a division of said application, continuation of said application, and any continuation-in-part of said application which is subject to said agreement concerning rights in invention, any reissue application for any Letters Patent granted on said application, or for any interference proceeding involving said application or Letters Patent granted thereon; and (c) prompt assistance and cooperation in the prosecution of all legal proceedings involving said inventions, said application, or Letters Patent granted thereon, including oppositions, cancellation proceedings, priority contests, public use proceedings and court actions.

4. The terms, covenants and conditions of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and/or other legal representatives, and shall be binding upon said Assignor, his heirs, legal representatives and assigns.

5. The terms, covenants and conditions of this Assignment are subject to the payment of royalty by Assignee to Assignor in accordance with the provisions of said Agreement Concerning Rights in Invention.

6. Said Assignor hereby requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States to said Assignee as the assignee of said inventions.

IN WITNESS WHEREOF said Assignor has executed and delivered this instrument on the respective dates noted below.

Date: <u>7/5/00</u>	<u>Martin M. Fejer</u> Martin M. Fejer
State: <u>California</u>	County: <u>Santa Clara</u>
Subscribed and sworn to before me on this <u>5</u> day of <u>July</u> , 19 <u>2000</u>	
	<u>Stefani D. Yee</u> Notary Public

