FORM PTO-1594 R 01-10-96:CMG	05-02-2002 U.S. DEPARTMENT OF COMMERC Patent and Trademark Offic
Atty Ref/Docket No.: 1153.037US1	
To the Honorable Commissioner of Patents and Trademark.	102076093 y thereof.
1. Name of conveying party(ies):	2. Name and address of receiving party(ies):
A. Olkhovets, D. W. Carr, Harold G. Craighead and J. M. Parpia $\mu \cdot 17$	Name: Cornell Research Foundation, Inc.
Additional name(s) of conveying party(ies) attached? []Yes [X]	No
3. Nature of conveyance:	Street Address: 20 Thornwood Drive Suite 105
[X] Assignment [] Merger	
[] Security Agreement [] Change of Name	City:IthacaState: <u>NY</u> ZIP: <u>14850</u>
] Other	Additional name(s) & address(es) attached? []Yes [X]No
Execution Date: March 5, March 7, March 6, March 15, (2002)	
 Application number(s) or patent number(s): 	
If this document is being filed together with a new application	1, the execution date of the application is:
A. Patent Application No.(s)	B. Patent No.(s)
Serial No. 10/034,594, <u>filed</u> December 28, 2001	
Additional numbers attached? []Yes [X]No	
	6. Total number of applications and patents involved: 1
5. Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved.
Name: Bradley A. Forrest	7. Total fee (37 CFR 3.41):\$ <u>40.00</u>
Address: Schwegman, Lundberg, Woessner & Kluth, P.A.	[X] Enclosed
P.O. Box 2938 Minneapolis, MN 55402	[] Authorized to be charged to deposit account
	8. Please charge any additional fees or credit any overpayments to our Deposit account number: <u>19-0743</u>
	DO NOT USE THIS SPACE
9. Statement and signature.	
To the best of my knowledge and belief, the foregoing inform	nation is true and correct and any attached copy is a true copy of the original document.
Bradley A. Forrest/Reg. No. 30,837	malsthat 4-8-2002
Name of Person Signing	Signature Date Total number of pages including cover sheet: <u>1</u>
OMB No. 0651-0011 (exp. 4/94)	
01/2002 DBYRNE 00000185 10034594 FG1F4 FG1F4 FG1F4 focuments to be recorded with required cover sheet information	Do not detach this portion ation to:
Commissioner of Patents and Trademarks Box Assignments Washington, D.C. 20231	
- i - the standard and completing and remaining the	to average about 30 minutes per document to be recorded, including time for reviewing the document is sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademan D.C. 20231, and to the Office of Management and Budget, Paperwork Reduction Project (0651-

ASSIGNMENT

362B Carlton Ave, Piscataway, NJ08854

WHEREAS, WE, <u>A. Olkhovets</u>, residing at <u>316 Highland Road #C10</u>, <u>Ithaca, NY 14850</u>, and <u>D. W. Carr</u>, residing at <u>Murray Hill, NJ 07974</u>, and <u>Harold G. Craighead</u>, residing at <u>21</u> <u>Fairway Drive</u>, <u>Ithaca, NY 14850</u>, and <u>J. M. Parpia</u>, residing at <u>Ithaca, NY 14850</u>, made certain new and useful inventions and improvements for which We filed an application for Letters Patent of the United States on <u>December 28, 2001</u>, which application was assigned U.S. patent application serial number <u>10/034,594</u>, and is entitled <u>MULTIPLE MECHANICAL RESONATOR</u> <u>PARAMETRIC DEVICE</u>.

AND WHEREAS, <u>Cornell Research Foundation, Inc.</u>, a corporation organized and existing under and by virtue of the laws of the State of <u>New York</u>, and having an office and place of business at <u>20 Thornwood Drive</u>, <u>Suite 105</u>, <u>Ithaca, NY</u> <u>14850</u>, (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefore;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations-in-part, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

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AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me/us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this $\frac{205}{2}$ day of <u>r March</u>, 2002.

<u>x all Oerts</u> A. Olkhovets

STATE OF New Jersey) SS. COUNTY OF Essex)

On this <u>5</u> day of <u>MArch</u>, 2002 before me personally appeared <u>A. Olkhovets</u> to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set

forth.

Notary Public

[SEAL]

IN TESTIMONY WHEREOF, I have hereunto set my hand this day of, 2002.
D. W. Carr
STATE OF)
)ss. COUNTY OF)
On this day of, 2002 before me personally appeared D. W. Carr_ to me
known and known to me to be the person described in and who executed the foregoing instrument, and
he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set
forth.
[SEAL] Notary Public
IN TESTIMONY WHEREOF, I have hereunto set my hand this day of, 2002.
Harold G. Craighead
STATE OF)
)ss. COUNTY OF)
On this day of, 2002 before me personally appeared <u>Harold G. Craighead</u>
to me known and known to me to be the person described in and who executed the foregoing
instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and
purposes therein set forth.
[SEAL]

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2002.

J. M. Parpia STATE OF ______) SS. COUNTY OF ______) On this ___ day of ______, 2002 before me personally appeared <u>J. M. Parpia</u> to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth. [SEAL]

Notary Public

ASSIGNMENT

WHEREAS, WE, <u>A. Olkhovets</u>, residing at <u>316 Highland Road #C10</u>, <u>Ithaca, NY 14850</u>, and <u>D. W. Carr</u>, residing at <u>Murray Hill, NJ 07974</u>, and <u>Harold G. Craighead</u>, residing at <u>21</u> Fairway Drive, <u>Ithaca, NY 14850</u>, and <u>J. M. Parpia</u>, residing at <u>Ithaca, NY 14850</u>, made certain new and useful inventions and improvements for which We filed an application for Letters Patent of the United States on <u>December 28, 2001</u>, which application was assigned U.S. patent application serial number <u>10/034,594</u>, and is entitled <u>MULTIPLE MECHANICAL RESONATOR</u> PARAMETRIC DEVICE.

AND WHEREAS, <u>Cornell Research Foundation, Inc.</u>, a corporation organized and existing under and by virtue of the laws of the State of <u>New York</u>, and having an office and place of business at <u>20 Thornwood Drive</u>, <u>Suite 105</u>, <u>Ithaca, NY</u> <u>14850</u>, (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefore;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me/us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2002.

A. Olkhovets

STATE OF _____) _____)ss. COUNTY OF _____)

On this _____ day of ______, 2002 before me personally appeared <u>A. Olkhovets</u> to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth

forth.

[SEAL]

Docket No.: 1153.037US1 Serial No.: 10/034,594 Filing Date: December 28, 2001 Page 3 of 4

IN TESTIMONY WHEREOF, I have hereunto set my hand this 7 day of March, 2002.
x (F/V)
D. W. Carr

STATE OF <u>New Jesey</u>) SS. COUNTY OF <u>Essev</u>)

On this 7 day of March, 2002 before me personally appeared D. W. Carr to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

* Sharrund alkes____

[SEAL]

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2002.

Harold G. Craighead

STATE OF _____))ss. COUNTY OF _____)

On this _____ day of ______, 2002 before me personally appeared Harold G. Craighead to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

Notary Public

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2002.

		J. M. Parpia		
STATE OF	/			
COUNTY OF)ss.)			
On this	day of	, 2002 before me p	personally appeared J. M. Par	<u>pia</u> to me
known and known to	o me to be the perso	on described in and who	o executed the foregoing instru	ment, and
he/she duly acknowl	ledged to me that h	he/she executed the sar	me for the uses and purposes t	therein set
forth.				
[SEAL]				

ASSIGNMENT

WHEREAS, WE, <u>A. Olkhovets</u>, residing at <u>316 Highland Road #C10</u>, <u>Ithaca, NY 14850</u>, and <u>D. W. Carr</u>, residing at <u>Murray Hill, NJ 07974</u>, and <u>Harold G. Craighead</u>, residing at <u>21</u> <u>Fairway Drive</u>, <u>Ithaca, NY 14850</u>, and <u>J. M. Parpia</u>, residing at <u>Ithaca, NY 14850</u>, made certain new and useful inventions and improvements for which We filed an application for Letters Patent of the United States on <u>December 28, 2001</u>, which application was assigned U.S. patent application serial number <u>10/034,594</u>, and is entitled <u>MULTIPLE_MECHANICAL_RESONATOR</u> PARAMETRIC DEVICE.

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NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me/us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of ______, 2002.

A. Olkhovets

____)

STATE OF _____) SS. COUNTY OF ____)

On this _____ day of ______, 2002 before me personally appeared A. Olkhovets to me

known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

IN TESTIMONY WHEREOF, I have hereunto set my hand this ____ day of _____, 2002.

D. W. Carr

STATE OF _____))ss. COUNTY OF)

On this _____ day of ______, 2002 before me personally appeared <u>D. W. Carr</u> to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

Notary Public

IN TESTIMONY WHEREOF, I have hereunto set my hand this <u>x &</u> day of <u>march</u>, 2002.

Harold G. Craighead

STATE OF	New York))ss.
COUNTY O	F Jonephins)

On this 4 day of March____, 2002 before me personally appeared Harold G. Craighead to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

Notary Public BOSEMARY PE

ROSEMARY REYNOLDS Notary Public, State of New York No. 4895247 Qualified in Tompkins County Term Expires May 18, 20.03

Docket No.: 1153.037US1 Serial No.: 10/034,594 Filing Date: December 28, 2001 Page 4 of 4

IN TESTIMONY WHEREOF, I have hereunto set my hand this ris day of March, 2002.

J. M. Parpia

STATE OF <u>Now York</u>))ss. COUNTY OF <u>Tomp Kins</u>)

On this <u>15th</u> day of <u>Macch</u>, 2002 before me personally appeared <u>J. M. Parpia</u> to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

Romany Republic

ROSEMARY REYNOLDS Notary Public, State of New York No. 4895247 Qualified in Tompkins County Term Expires May 18, 20_

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: A. Olkhovets et al.

Title: MULTIPLE MECHANICAL RESONATOR PARAMETRIC DEVICE

Docket No.: 1153.037US1 Filed: December 28, 2001 Examiner: Unknown Serial No.: 10/034,594 Due Date: N/A Group Art Unit: Unknown

Attn: Box Assignment Hon. Commissioner for Patents and Trademarks Washington, D.C. 20231

We are transmitting herewith the attached:

X An Assignment of the invention to <u>Cornell Research Foundation, Inc.</u> (12 pgs.) and Recordation Form Cover Sheet (1 pg.).

- \underline{X} A check in the amount of \$40.00 to cover the Assignment Recording Fee.
- \underline{X} A return postcard.
- _ Other: ___.

Please charge any additional required fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. Box 2938, Minneapolis, MN 55402 (612-373-6900)

Name: Bradley A. Forrest Reg. No. 30,837 BAF:CMG:jds

<u>CERTIFICATE UNDER 37 CFR 1.8:</u> The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Attn: Box Assignment, Hon. Commissioner for Patents and Trademarks, Washington, D.C. 20231, on this <u>day of April</u>, 2002

Jason D. Smith

Name

RECORDED: 04/17/2002