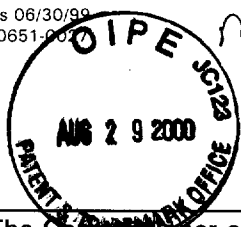


FORM PTO -1619A

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U.S. Department of Commerce
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PATENT

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☒ Assignment☐ Security Agreement☐ License☐ Change of Name☐ Merger☐ Other

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☐ Departmental File☐ Secret File

Conveying Party

☒ Mark if additional names of conveying parties attached

Name (line 1) Barabasi, Albert-Laszlo

Effective Date
Month Day Year

08 23 2000

Name (line 2)

Second Party

Name (line 1) Janko, Boldizsar

Effective Date
Month Day Year

08 24 2000

Name (line 2)

Receiving Party

☐ Mark if additional names of conveying parties attached

Name (line 1) University of Notre Dame

Name (line 2)

Address (line 1)

Address (line 2) 511 Main Building

Address (line 3) Notre Dame

Indiana

46556

City

State/Country

Zip Code

☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Domestic Representative Name and Address

Enter for the Receiving Party only

Name Michael D. Rechtin

Address (line 1) FOLEY & LARDNER

Address (line 2) 330 North Wabash Avenue

Address (line 3) Suite 3300

Address (line 4) Chicago, Illinois 60611-3608

08/31/2000 BHABTEW 00000028 09531646

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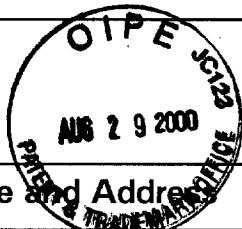
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Correspondent Name and Address		Area Code and Telephone Number	(312) 755-1900
Name	Michael D. Rechtin	088328/0103	
Address (line 1)	FOLEY & LARDNER		
Address (line 2)	330 North Wabash Avenue		
Address (line 3)	Suite 3300		
Address (line 4)	Chicago, Illinois 60611-3608		

Pages	Enter the total number of pages of the attached conveyance document including any attachments	#	3
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Application Number(s) or Patent Number(s)			<input type="checkbox"/> Mark if additional numbers attached
<i>Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).</i>			
Patent Application Number(s)		Patent Number(s)	
09531646			

If this document is being filed together with a <u>new</u> Patent Application, enter the date the patent application was signed by the first named executing inventor	Month	Day	Year

Patent Cooperation Treaty (PCT)	PCT		PCT		PCT	
Enter PCT application number <u>only if</u> a U.S. Application Number has not been assigned.	PCT		PCT		PCT	

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<i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.</i>		
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Month Day Year

Name (line 2)

Name (line 1)

Effective Date
Month Day Year

Name (line 2)

Name (line 1)

Effective Date
Month Day Year

Name (line 2)

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☐ Mark if additional names of conveying parties attached

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

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☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

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Address (line 1)

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City State/Country Zip Code

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Patent Application Number(s)

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Patent Number(s)

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ASSIGNMENT**PATENT**
86328703

WHEREAS Albert-Laszlo Barabasi, Boldizsar Janko, Choongseop Lee and Imre Derenyi (hereinafter singly and collectively, "ASSIGNOR") invented **REDUCING VORTEX DENSITIES AND TRANSPORTING VORTICES IN SUPERCONDUCTORS** for which application for Letters Patent of the United States has been executed on even date herewith; and

WHEREAS, University of Notre Dame (hereinafter "ASSIGNEE"), a corporation organized and existing under and by virtue of the laws of the State of Indiana, and having its principal place of business at 511 Main Building, Notre Dame, Indiana 46556 and a mailing address of same is desirous of acquiring the full right, title and interest therein;

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR by these presents does sell, assign and transfer unto ASSIGNEE, its successors, assigns and legal representatives, the full and exclusive right to the invention as described in the aforesaid application, in the United States and all foreign countries, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States adheres, and hereby authorize and request the Commissioner of Patents to issue said Letters Patent to ASSIGNEE, for the sole use and benefit of ASSIGNEE, its successors, assigns and legal representatives,

AND ASSIGNOR HEREBY AGREES to transfer a like interest upon request of ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, in and to any improvements and applications for patents based thereon, growing out of or relating to the invention; and to provide all reasonable assistance and execute any papers deemed essential by ASSIGNEE, its successors, assigns and legal representatives, to ASSIGNEE'S full protection and title in and to the invention hereby transferred,

ASSIGNOR AGREEING, FURTHERMORE, upon request of ASSIGNEE, and without further remuneration, to execute any and all papers desired by ASSIGNEE for the filing and granting of foreign applications and the perfecting of title thereto in ASSIGNEE.

(1) **EXECUTED** this 23rd day of August, 2000

Albert-Laszlo Barabasi
Albert-Laszlo Barabasi

State of Indiana)
) SS.

County of St. Joseph)

On this 23rd day of August, 2000, before me, a notary public in and for said county, appeared Albert-Laszlo Barabasi who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act for the uses and purposes therein set forth.

(Seal)

Karen M. Pace
Notary Public Karen M. Pace

My Commission Expires: 2/22/01

(2) EXECUTED this 24th day of August, 2000Boldizar Janko
Baldizar JankoState of Indiana)
) SS.
County of St. Joseph)

On this 24th day of August, 2000, before me, a notary public in and for said county, appeared Baldizar Janko who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act for the uses and purposes therein set forth.

(Seal)

Karen M. Pace
Notary Public Karen M. PaceMy Commission Expires: 02/22/01(3) EXECUTED this 23rd day of August, 2000Choongseop Lee
Choongseop LeeState of Indiana)
) SS.
County of St. Joseph)

On this 23rd day of August, 2000, before me, a notary public in and for said county, appeared Choongseop Lee who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act for the uses and purposes therein set forth.

(Seal)

Karen M. Pace
Notary Public Karen M. PaceMy Commission Expires: 2/22/01

(4) EXECUTED this _____ day of _____, _____

Imre DerenyiState of _____)
) SS.
County of _____)

On this _____ day of _____, 2000, before me, a notary public in and for said county, appeared Imre Derenyi who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act for the uses and purposes therein set forth.

(Seal)

Notary Public

My Commission Expires: _____

Baldemar Janko

State of Indiana)
 County of St. Joseph) SS.



On this 24th day of August, 2000, before me, a notary public in and for said county, appeared Baldemar Janko who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act for the uses and purposes therein set forth.

(Seal)

Karen M. Pace
 Notary Public Karen M. Pace

My Commission Expires: 02/22/01

(3) EXECUTED this 23rd day of August, 2000

Choongsop Lee
 Choongsop Lee

State of Indiana)
 County of St. Joseph) SS.

On this 23rd day of AUGUST, 2000, before me, a notary public in and for said county, appeared Choongsop Lee who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act for the uses and purposes therein set forth.

(Seal)

Karen M. Pace
 Notary Public Karen M. Pace

My Commission Expires: 2/22/01

(4) EXECUTED this 25 day of AUGUST, 2000

Imre Derenyi
 Imre Derenyi

State of _____)
 County of _____) SS.

On this _____ day of _____, 2000, before me, a notary public in and for said county, appeared Imre Derenyi who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act for the uses and purposes therein set forth.

(Seal)

Notary Public _____

My Commission Expires: _____

Page 2 of 2

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