

11-19-1999

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

FORM PTO-1595
(Rev. 6-93)

OMB No. 351-7011 (exp. 04)



101168484

To the Honorable Commissioner of

original documents or copy thereof.

Record As 8-25-95

RE
7-16-99

1. Name of conveying party(ies):
John S. Haggerty

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

Name: Massachusetts Inst. of Tech.

Internal Address: _____

Street Address: 77 Massachusetts Ave.

City: Cambridge State: MA ZIP: 02139

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

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

3. Nature of conveyance:

- Assignment Merger
- Security Agreement Change of Name
- Other _____

Execution Date: 7/19/95, 7/25/95

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)

08/450, 692

B. Patent No.(s)

Additional numbers attached? Yes No

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

Name: Theresa A. Lober

Internal Address: T. A. Lober Patent Services

Street Address: 128 Robbins Drive

City: Carlisle State: MA ZIP: 01741

6. Total number of applications and patents involved:

7. Total fee (37 CFR 3.41).....\$ 40.00

- Enclosed
- Authorized to be charged to deposit account

8. Deposit account number:

19-2553

(Attach duplicate copy of this page if paying by deposit account)

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9. Statement and signature.

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.

Theresa A. Lober

Name of Person Signing

[Signature]
Signature

July 14, 1999
Date

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

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Washington, D.C. 20231

FORM PTO-1595
(Rev. 10/94)

RECORDATION FORM COVER SHEET

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Patent and Trademark Office

PATENTS ONLY

Tab settings

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

1. Name of conveying party(ies):
William L. Robbins

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

2. Name and address of receiving party(ies):
Name: C.S. Draper Laboratory, Inc.
Internal Address: _____

3. Nature of conveyance:
 Assignment Merger
 Security Agreement Change of Name
 Other _____
Execution Date: 7/19/95

Street Address: 555 Technology Square

City: Cambridge State: MA ZIP: 02139

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)
08/450,692

B. Patent No.(s)

Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:
Name: Theresa A. Lober
Internal Address: T. A. Lober Patent Services

Street Address: 128 Robbins Drive

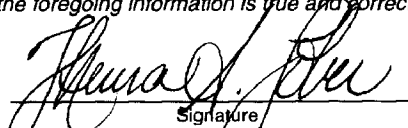
City: Carlisle State: MA ZIP: 01741

6. Total number of applications and patents involved: 1
7. Total fee (37 CFR 3.41).....\$ 40.00
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8. Deposit account number:
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Theresa A. Lober
Name of Person Signing


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Washington, D.C. 20231

RECORDATION FORM COVER SHEET
PAGE TWO

Document ID No.: 101041499

1. ADDITIONAL NAMES OF CONVEYING PARTIES:

Dennis D. Rathman
William D. Goodhue
George B. Kenney
Annamarie Lightfoot
R. Allen Murphy
Wendell E. Rhine
Julia Sigalovsky

MW
8-25-95

06-22-1999



101041499
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FORM PTO-1506
(Rev. 6-93)
OMB No. 0651-0011 (exp. 4/94)

RE

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

1. Name of conveying party(ies):
William L. Robbins
John S. Haggerty

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

2. Name and address of receiving party(ies)
Name: C.S. Draper Laboratory, Inc.

Internal Address: _____

Street Address: 555 Technology Square

City: Cambridge State: MA ZIP: 02139

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

3. Nature of conveyance:

- Assignment Merger
- Security Agreement Change of Name
- Other _____

Execution Date: 7/19/95, 7/25/95

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)

08/450,692

B. Patent No.(s)

Additional numbers attached? Yes No

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

Name: Theresa A. Lober

Internal Address: _____

Street Address: 128 Robbins Drive

City: Carlisle State: MA ZIP: 01741

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41).....\$ 40.00

Enclosed

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8. Deposit account number:

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9. Statement and signature.

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.

Theresa A. Lober

Name of Person Signing

Signature

August 23, 1995

Date

Total number of pages including cover sheet, attachments, and document: 8

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Washington, D.C. 20231

PATENT
REEL: 010233 FRAME: 0973

RECORDATION FORM COVER SHEET
PAGE TWO

1. ADDITIONAL NAMES OF CONVEYING PARTIES:

Dennis D. Rathman
William D. Goodhue
George B. Kenney
Annamarie Lightfoot
R. Allen Murphy
Wendell E. Rhine
Julia Sigalovsky

2. ADDITIONAL NAMES OF RECEIVING PARTIES:

Massachusetts Institute of Technology
77 Massachusetts Avenue
Cambridge, Massachusetts 02139

ASSIGNMENT

For valuable consideration, I, **WILLIAM L. ROBBINS**, OF NEWTON, MASSACHUSETTS; hereby assign to THE CHARLES STARK DRAPER LABORATORY, INC., a corporation organized and existing under the laws of the Commonwealth of Massachusetts, and having a usual place of business at 555 Technology Square, Cambridge, Massachusetts 02139, and its successors and assigns (collectively hereinafter called "ASSIGNEE"), the entire right, title, and interest throughout the world in the inventions and improvements which are the subject of the patent specification filed May 25, 1995 as application Serial No. 08/450,692, and entitled **NET-SHAPE CERAMIC PROCESSING FOR ELECTRONIC DEVICES AND PACKAGES**; this assignment including said application and any and all the United States and foreign patent applications and patents granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and I authorize ASSIGNEE to apply in all countries in my name or its own name for patents and like rights of exclusion and for inventors' certificates for said inventions and improvements by attorneys and agents of ASSIGNEE selection; and I agree for myself and my respective heirs, legal representatives, and assigns, without further compensation, to perform such lawful acts including the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved, and to sign such further applications for patents, including those of foreign countries, and substitution, reissue, divisional, or continuation applications or other such further applications, and to sign such further assignments, preliminary statements, and other lawful documents as ASSIGNEE may reasonably request to effectuate fully this assignment.

IN WITNESS WHEREOF, I hereto set my hand and affix my seal at Cambridge,
Mass this 19th day of July, 1995

STATE OF Massachusetts Wm. L. Robbins

COUNTY OF Middlesex SS.

Before me this 19 day of July, 1995, personally appeared **WILLIAM L. ROBBINS**, known to me to be the person whose name of subscribed to the foregoing Assignment and acknowledged that he executed the same as his free act and deed for the purposes therein contained.

.....Jarmila J. Hrbek.....
NOTARY PUBLIC

[Notary's Seal Here]

My Commission expires: 4/29/99

ASSIGNMENT

For valuable consideration, We, **JOHN S. HAGGERTY**, OF LINCOLN, MASSACHUSETTS; **DENNIS D. RATHMAN**, OF ASHLAND, MASSACHUSETTS; **WILLIAM D. GOODHUE**, OF CHELMSFORD, MASSACHUSETTS; **GEORGE B. KENNEY**; OF MEDFIELD, MASSACHUSETTS; **ANNAMARIE LIGHTFOOT**, OF ANDOVER, MASSACHUSETTS; **R. ALLEN MURPHY**, OF BOXBORO, MASSACHUSETTS; **WENDELL E. RHINE**, OF BELMONT, MASSACHUSETTS; AND **JULIA SIGALOVSKY**, OF SUDBURY, MASSACHUSETTS; hereby assign to MASSACHUSETTS INSTITUTE OF TECHNOLOGY, a corporation organized and existing under the laws of the Commonwealth of Massachusetts, and having a usual place of business at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139, and its successors and assigns (collectively hereinafter called "ASSIGNEE"), the entire right, title, and interest throughout the world in the inventions and improvements which are the subject of the patent specification filed May 25, 1995 as application Serial No. 08/450,692, and entitled **NET-SHAPE CERAMIC PROCESSING FOR ELECTRONIC DEVICES AND PACKAGES**; this assignment including said application and any and all the United States and foreign patent applications and patents granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize ASSIGNEE to apply in all countries in our name or its own name for patents and like rights of exclusion and for inventors' certificates for said inventions and improvements by attorneys and agents of ASSIGNEE selection; and we agree for ourselves and our respective heirs, legal representatives, and assigns, without further compensation, to perform such lawful acts including the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved, and to sign such further applications for patents, including those of foreign countries, and substitution, reissue, divisional, or continuation applications or other such further applications, and to sign such further assignments, preliminary statements, and other lawful documents as ASSIGNEE may reasonably request to effectuate fully this assignment.

IN WITNESS WHEREOF, I hereto set my hand and affix my seal at Cambridge, MA,

_____ this 19 day of July, 1995

STATE OF Massachusetts _____ John S. Haggerty

COUNTY OF Middlesex SS.

Before me this 19 day of July, 1995, personally appeared **JOHN S. HAGGERTY** known to me to be the person whose name of subscribed to the foregoing Assignment and acknowledged that he executed the same as his free act and deed for the purposes therein contained.

..... Jarmila J. Hlubik
NOTARY PUBLIC

[Notary's Seal Here]

My Commission expires: 4/29/99

IN WITNESS WHEREOF, I hereto set my hand and affix my seal at Cambridge,
Mass. this 19 day of July, 1995

STATE OF Massachusetts Dennis D. Rathman
COUNTY OF Middlesex SS.

Before me this 19 day of July, 1995, personally appeared
DENNIS D. RATHMAN known to me to be the person whose name of subscribed to the foregoing
Assignment and acknowledged that he executed the same as his free act and deed for the purposes
therein contained.

Jarmela J. Hulek
NOTARY PUBLIC

[Notary's Seal Here]

My Commission expires: 4/29/99

IN WITNESS WHEREOF, I hereto set my hand and affix my seal at Lexington,
MA this 25 day of July, 1995

STATE OF Massachusetts William D. Goodhue
COUNTY OF Middlesex SS.

Before me this 25th day of July, 1995, personally appeared
WILLIAM D. GOODHUE known to me to be the person whose name of subscribed to the foregoing
Assignment and acknowledged that he executed the same as his free act and deed for the purposes
therein contained.

Suzanne M. Herbert
NOTARY PUBLIC

[Notary's Seal Here]

My Commission expires: 11/7/97

IN WITNESS WHEREOF, I hereto set my hand and affix my seal at Cambridge,
MA this 19 day of July, 19 95

STATE OF Massachusetts George Kenney
COUNTY OF Middlesex SS.

Before me this 19 day of July, 19 95, personally appeared
GEORGE B. KENNEY known to me to be the person whose name of subscribed to the foregoing
Assignment and acknowledged that he executed the same as his free act and deed for the purposes
therein contained.

Jarmela Z. Hsieh
NOTARY PUBLIC

[Notary's Seal Here]

My Commission expires: 4/29/99

IN WITNESS WHEREOF, I hereto set my hand and affix my seal at Cambridge, MA,
this 19 day of July, 19 95

STATE OF Massachusetts Annamarie Lightfoot
COUNTY OF Middlesex SS.

Before me this 19 day of July, 19 95, personally appeared
ANNAMARIE LIGHTFOOT known to me to be the person whose name of subscribed to the foregoing
Assignment and acknowledged that she executed the same as her free act and deed for the purposes
therein contained.

Jarmela Z. Hsieh
NOTARY PUBLIC

[Notary's Seal Here]

My Commission expires: 4/29/99

IN WITNESS WHEREOF, I hereto set my hand and affix my seal at Cambridge, MA
this 19 day of July, 1995

STATE OF Massachusetts R. Allen Murphy
COUNTY OF Middlesex SS.

Before me this 19 day of July, 1995, personally appeared
R. ALLEN MURPHY known to me to be the person whose name of subscribed to the foregoing
Assignment and acknowledged that he executed the same as his free act and deed for the purposes
therein contained.

..... Jarmela Z. Hsieh
NOTARY PUBLIC

[Notary's Seal Here]

My Commission expires: 4/29/99

IN WITNESS WHEREOF, I hereto set my hand and affix my seal at Cambridge Mt.
this 19 day of July, 1995

STATE OF Massachusetts Wendell E Rhine
COUNTY OF Middlesex SS.

Before me this 19 day of July, 1995, personally appeared
WENDELL E. RHINE known to me to be the person whose name of subscribed to the foregoing
Assignment and acknowledged that he executed the same as his free act and deed for the purposes
therein contained.

..... Jarmela Z. Hsieh
NOTARY PUBLIC

[Notary's Seal Here]

My Commission expires: 4/29/99

IN WITNESS WHEREOF, I hereto set my hand and affix my seal at Cambridge, MA
this 19 day of July, 1995

STATE OF Massachusetts Julia Sigalovsky
COUNTY OF Middlesex SS.

Before me this 19 day of July, 1995, personally appeared
JULIA SIGALOVSKY known to me to be the person whose name of subscribed to the foregoing
Assignment and acknowledged that she executed the same as her free act and deed for the purposes
therein contained.

..... Jarmila Z. Helich
NOTARY PUBLIC

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My Commission expires: 4/29/99