

06-27-2002



102135247

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PD-02W042

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☒ New **6-14-02**
☐ Resubmission (Non-Recordation)
Document ID#
☐ Correction of PTO Error
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Conveyance Type

☒ Assignment ☐ Security Agreement
☐ License ☐ Change of Name
☐ Merger ☐ Other
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☐ Departmental File ☐ Secret File

10/17/95
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Conveying Party(ies)

☒ Mark if additional names of conveying parties attached
Name (line 1) **Robert W. Byren** Execution Date Month Day Year **06-14-2002**
Name (line 2)

Second Party

Name (line 1) **William S. Griffin** Execution Date Month Day Year **06-14-2002**
Name (line 2)

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Name (line 1) **RAYTHEON COMPANY**
Name (line 2)
Address (line 1) **Bldg. E1, M.S. E150**
Address (line 2) **P.O. Box 902**
Address (line 3) **El Segundo** **California** **90245**
City State/Country Zip Code

10171955

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name **Colin M. Raufer, Reg. No. 40,781**
Address (line 1) **Bldg. E1, M.S. E150**
Address (line 2) **P.O. Box 902**
Address (line 3) **El Segundo, California 90245**
Address (line 4)

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PATENT
REEL: 013016 FRAME: 0718

Correspondent Name and Address

Area Code and Telephone Number (310) 647-3214

Name Patent Records Administration

Address (line 1) RAYTHEON COMPANY

Address (line 2) Bldg. E1, M.S. E150

Address (line 3) P.O. Box 902

Address (line 4) El Segundo, California 90245

Pages

Enter the total number of pages of the attached conveyance document including any attachments.

3

Application Number(s) or Patent Number(s)

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Patent Application Number(s)

Patent Number(s)

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month Day Year

Patent Cooperation Treaty (PCT)

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PCT PCT PCT
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Number of Properties

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1

Fee Amount

Fee Amount for Properties Listed (37 CFR 3.41): \$ 40.00

Method of Payment:
Deposit Account

Enclosed ☐ Deposit Account ☒

(Enter for payment by deposit account or if additional fees can be charged to the account.)

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50-0616

Authorization to charge additional fees:

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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. Charges to deposit account are authorized, as indicated herein.

Colin M. Raufer, Reg. No. 40,781

Name of Person Signing

Colin M. Raufer

Signature

June 14, 2002

Date

RECORDATION FORM COVER SHEET
CONTINUATION
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U.S. Department of Commerce
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Conveying Party(ies)

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Execution Date
Month Day Year

06-14-2002

Name (line 1) Alexander A. Betin

Name (line 2)

Execution Date
Month Day Year

Name (line 1)

Name (line 2)

Execution Date
Month Day Year

Name (line 1)

Name (line 2)

Receiving Party(ies)

☐

Mark if additional names of receiving parties attached

Enter additional Receiving Party(ies)

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Name (line 2)

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Address (line 1)

Address (line 2)

Address (line 3)

City

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Application Number(s) or Patent Number(s)

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Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)


ASSIGNMENTPage 1 of 3
PD-02W042

WHEREAS, I, as below named sole inventor (if only one name is listed below) or joint inventor (if plural names are listed below) of the city and state as stated below next to my name, have invented a(an) **LASER COOLING APPARATUS AND METHOD** for which application for Letters Patent of the United States has been executed by me on or before this day, or (if the following is completed) filed on _____, as Serial No. _____; and

WHEREAS, RAYTHEON COMPANY, (hereinafter referred to as Raytheon), a Delaware Corporation, having its principal place of business in Lexington, Massachusetts, is desirous of acquiring the entire and exclusive right, title and interest in, to and under said invention, said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world;

NOW, THEREFORE, in consideration of the obligations voluntarily assumed by me and set forth in an invention agreement between me and my employer, effective the date as stated below next to my name, and other good and valuable consideration, receipt of which is hereby acknowledged, I do hereby sell, assign and transfer to RAYTHEON, its successors, assigns or other legal representatives, the entire and exclusive right, title and interest in and to said invention invented by me, to said application and any and all applications which are continuations, continuations-in-part, divisions or substitutes of said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world on any of said applications and to any and all reexaminations, reissues, renewals or extensions of said Letters Patent in the United States and throughout the world for the full term or terms for which said Letters patent may be granted in the United States and throughout the world; authorize and request The Commissioner of Patents and Trademarks of the United States and all foreign countries to issue all such Letters Patent to said RAYTHEON, its successors, assigns or other legal representatives; covenant that no assignment, sale, agreement, transfer or encumbrance has been, or will be, made or entered into which would conflict with this assignment, sale and transfer; and agree to communicate to RAYTHEON, its successors, assigns or other legal representatives, upon request and at no cost or expense to me, any facts known by me respecting said invention, do all lawful acts, including the execution and delivery of all papers and proper oaths and giving of testimony that is deemed necessary or desirable by RAYTHEON, its successors, assigns or other legal representatives with regard to said invention for protecting, obtaining, maintaining and enforcing any and all of said Letters Patent in the United States and throughout the world for said invention and for perfecting, affirming, recording and maintaining the title of RAYTHEON, its successors, assigns or other legal representatives, and generally cooperate to the fullest extent in all matters pertaining to said invention, and any and all of said Letters Patent and the title thereto in RAYTHEON, its successors, assigns or other legal representatives.

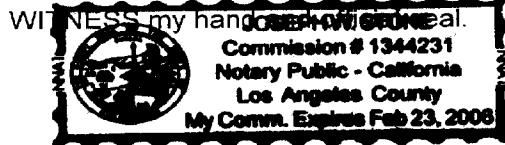
IN WITNESS WHEREOF, I have executed this instrument.

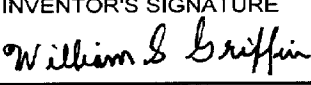
FULL NAME OF SOLE OR JOINT INVENTOR ROBERT W. BYREN	INVENTOR'S SIGNATURE 	DATE 6/14/02
RESIDENCE (CITY AND STATE) MANHATTAN BEACH, CA		INVENTION AGREEMENT DATE September 5, 1979

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS:

On JUNE 14, 2002 before me, JOSEPH W. STONE,
a Notary Public in and for said State, personally appeared ROBERT W. BYREN

☒ personally known to me or ☐ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

Notary Public Joseph W. Stone

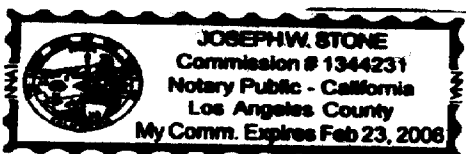
FULL NAME OF SOLE OR JOINT INVENTOR WILLIAM S. GRIFFIN	INVENTOR'S SIGNATURE 	DATE 14 June 2002
RESIDENCE (CITY AND STATE) MANHATTAN BEACH, CA		INVENTION AGREEMENT DATE April 11, 1977

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS:

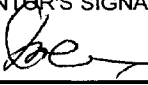
On JUNE 14, 2002 before me, JOSEPH W. STONE,
a Notary Public in and for said State, personally appeared WILLIAM S. GRIFFIN

☐ personally known to me or ☒ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Notary Public Joseph W. Stone

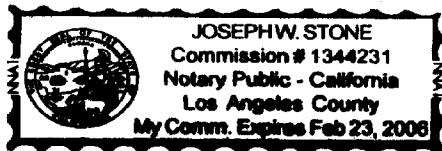
IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT INVENTOR ALEXANDER A. BETIN	INVENTOR'S SIGNATURE 	DATE 6/14/02
RESIDENCE (CITY AND STATE) MANHATTAN BEACH, CA		INVENTION AGREEMENT DATE June 28, 1999

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS:
On JUNE 14, 2002 before me, JOSEPH W. STONE,
a Notary Public in and for said State, personally appeared ALEXANDER A. BETIN

☐ personally known to me or ☒ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.



Notary Public

