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To the Honorable Commissioner of Patents and Trademark	
1. Name of conveying party(ies): $2 - 12.0$	2. Name and aud 02366672
1. Federico Capasso5. Nina Owschimikow2. Alfred Yi Cho6. Deborah Lee Sivco3. Raffaele Colombelli4. Claire F Gmachl	Name: Lucent Technologies Inc. Internal Address:
Additional name(s) of conveying party(ies) attached?	
3. Nature of conveyance:	Street Address: 600 Mountain Avenue
🛛 Assignment 🗌 Merger	P.O. Box 636
Security Agreement Change of Name	City: <u>Murray Hill</u> State: <u>NJ</u> ZIP: <u>07974-0636</u>
☐ Other	
Execution Date(s): 12/30/02; 2/3/03; 1/24/03; 1/3/03; 1/3/03; 1/23/03	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 applic	ation, the execution date of the application is:
A. Patent Application No.(s)	B. Patent No.(s)
10/261423	
	attached? 🗌 Yes 🖾 No
5. Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: <u>1</u>
Name: Docket Administrator	7. Total fee (37 CFR 3.41) <u>\$40.00</u>
Internal Address: Room 3J-219	Enclosed
	Authorized to be charged to deposit account
	8. Deposit account number: <u>12-2325</u>
Street Address: 101 Crawfords Corner Road	
City: <u>Holmdel</u> State: <u>NJ</u> ZIP: 07733-3030	(Attach duplicate copy of this page if paying by deposit account
f	JSE THIS SPACE
09. Statemant (and signature. To the best of my knowledge and belief, the foregoing in copy of the original document.	formation is true and correct and any attached copy is a true
Jeffrey M. Weinick	4/17.Mezz2/5/03
Name of Person Signing	Signature Date
	sheet, attachments, and document: <u>15 pages</u>
Commissioner of Patents	with required cover sheet information to: & Trademarks, Box Assignment jton, D.C. 20231
Case Name/No.: <u>Capasso 71-111-4-25-1-40</u>	
I hereby certify that this correspondence is being deposited with the addressed to: Commissioner of Patents and Trademarks, Washing	ton, DC 20231, on <u>740 5, 960 5</u> .
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	PATENT

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REEL: 013745 FRAME: 0722

ASSIGNMENT AND AGREEMENT

For value received, we, Federico Capasso, of Westfield in the County of Union and the State of New Jersey, and Alfred Yi Cho, of Summit in the County of Union and the State of New Jersey, and Raffaele Colombelli, of Hoboken in the County of Hudson and the State of New Jersey, and Claire F Gmachl, of New Providence in the County of Union and the State of New Jersey, and Nina Owschimikow, of New Providence in the County of Union and the State of New Jersey, and Deborah Lee Sivco, of Warren in the County of Somerset and the State of New Jersey, hereby sell, assign and transfer to Lucent Technologies Inc., a corporation of the State of Delaware, having an office at 600 Mountain Avenue, Murray Hill, New Jersey, 07974-0636, U.S.A. and its successors, assigns and legal representatives, the entire right, title and interest, for the United States of America, in and to certain inventions related to Nonlinear Semiconductor Light Sources described in an application for Letters Patent of the United States, Serial No. 10/261423, filed September 30, 2002, and all the rights and privileges in said application and under any and all Letters Patent that may be granted in the United States for said inventions; and we also concurrently hereby sell, assign and transfer to Lucent Technologies Inc. the entire right, title and interest in and to said inventions for all countries foreign to the United States, including all rights of priority arising from the application aforesaid, and all the rights and privileges under any and all forms of protection, including Letters Patent, that may be granted in said countries foreign to the United States for said inventions.

We authorize Lucent Technologies Inc. to make application for such protection in its own name and maintain such protection in any and all countries foreign to the United States, and to invoke and claim for any application for patent or other form of protection for said inventions, without further authorization from us, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of Lucent Technologies Inc. to apply for patent or other form of protection for said inventions and to claim the aforesaid benefit of the right of priority.

We request that any and all patents for said inventions be issued to Lucent Technologies Inc. in the United States and in all countries foreign to the United States, or to such nominees as Lucent Technologies Inc. may designate.

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We agree that, when requested, we shall, without charge to Lucent Technologies Inc. but at its expense, sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said applications. patents, or other forms of protection.

<u>Jedenico</u> Lez error Federico Capasso

Date: 12 30 2002

United States of America)

State of Kew given) ss.: County of Union)

On this <u>304</u> day of <u>Quench</u>, 20<u>0</u>, before me personally came, Federico Capasso to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

Catherine 7. Duga otary Public

CATHERINE F. DUGAN NOTARY FUELIC OF NEW JERSE' Commission Exclime 1/17/2007

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kyicho Alfred Yi Cho

Date: fef 3, 2003

United States of America)

State of then jursey) ss.: County of Uman)

On this 3 red day of $\frac{1}{2}$ day of \frac{1}{2} and who executed the foregoing instrument, and acknowledged execution of the same.

Catherine 7 Du Notary Public

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CATHERINE F. DUGAN NOTARY PUBLIC OF NEW JERSEY Commission Exclusion 1/17/2007

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Date: 1/25/03

United States of America)

State of New Jersey) ss .: County of Union)

On this 24% day of 32%, before me personally came, Raffaele Colombelli to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

Cotherine 7 Organ

CATHERINE F. DUGAN NOTARY PUBLIC OF NEW JERSEY Commission Pacines 1/17/2007

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Claire F

Date: 1303

United States of America)

State of Ken Jensey) ss .: County of Oner)

On this <u></u>day of <u></u>, 20<u>0</u>, before <u>,</u> 20<u>0</u>, before <u>,</u> me personally came, Claire F Gmachl to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

Catherine 7 Dugan Notary Public

CATHERINE F. DUGAN NOTARY PUBLIC OF NEW JERSEY Commission Expires 1/17/2007

Nina Owschimikow

Date:_____

United States of America)

State of) ss.:

)

County of

On this ______ day of ______,20____, before me personally came, Nina Owschimikow to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

Notary Public

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PATENT REEL: 013745 FRAME: 0728

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What Lee Sivco Dehoral

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Date: 1-3-03

United States of America)

State of New general) ss .: County of Union

On this 3-4 day of 3-4, before $,20 \circ 3$, before me personally came, Deborah Lee Sivco to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

Catherine 7 Sugar

CATHERINE F. DUGAN NOTARY PUBLIC OF NEW JERSEY Commission Expires 1/17/2007

Lucent Technologies Inc. Docket Administrator (Room 3J-219) Lucent Technologies Inc. 101 Crawfords Corner Road Holmdel, NJ 07733-3030

ASSIGNMENT AND AGREEMENT

For value received, we, Federico Capasso, of Westfield in the County of Union and the State of New Jersey, and Alfred YI Cho, of Summit in the County of Union and the State of New Jersey, and Raffaele Colombelli, of Hoboken in the County of Hudson and the State of New Jersey, and Claire F Gmachl, of New Providence in the County of Union and the State of New Jersey, and Nina Owschlmikow, of New Providence in the County of Union and the State of New Jersey, and Deborah Lee Sivco, of Warren in the County of Somerset and the State of New Jersey, hereby sell, assign and transfer to Lucent Technologies Inc., a corporation of the State of Delaware, having an office at 600 Mountain Avenue, Murray Hill, New Jersey, 07974-0636, U.S.A. and its successors, assigns and legal representatives, the entire right, title and interest, for the United States of America, in and to certain inventions related to Nonlinear Semiconductor Light Sources described in an application for Letters Patent of the United States, Serial No. 10/261423, filed September 30, 2002, and all the rights and privileges in said application and under any and all Letters Patent that may be granted in the United States for said inventions; and we also concurrently hereby sell, assign and transfer to Lucent Technologies Inc. the entire right, title and interest in and to said inventions for all countries foreign to the United States, including all rights of priority arising from the application aforesaid, and all the rights and privileges under any and all forms of protection, including Letters Patent, that may be granted in said countries foreign to the United States for said inventions.

We authorize Lucent Technologies Inc. to make application for such protection in its own name and maintain such protection in any and all countries foreign to the United States, and to invoke and claim for any application for patent or other form of protection for said inventions, without further authorization from us, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of Lucent Technologies Inc. to apply for patent or other form of protection for said inventions and to claim the aforesaid benefit of the right of priority.

We request that any and all patents for said inventions be issued to Lucent Technologies Inc. in the United States and in all countries foreign to the United States, or to such nominees as Lucent Technologies Inc. may designate.

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We agree that, when requested, we shall, without charge to Lucent Technologies inc. but at its expense, sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

Jedenico la mon

002 Date:

United States of America)

State of Ken genery) ss.: County of Union)

On this <u>sort</u> day of <u>Quernet</u>, 2000, before me personally came, Federico Capasso to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

Catherine F. Duy

CATHERINE F. DUGAN VOTARY PUBLIC OF NEW JERSEY Committion Excess 1/17/2017

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Alfred Yi Cho

Date:_____

United States of America)

State of) ss.:

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County of

On this ______ day of ______, 20____, before me personally came, Alfred YI Cho to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

Notary Public

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Raffaele Colombelli

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Date:____

United States of America)

State of) ss.:

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County of

On this ______ day of ______,20____, before me personally came, Raffaele Colombelli to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

Notary Public

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SS TWA . 03 (DOA) 55:48 H KEGENEH

Date: (3103

United States of America)

State of Ken Jenney) ss .: County of Omer)

On this <u></u> day of <u></u>,20 0 , before <u>,</u>20 0 , before me personally came, Claire F Gmachi to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

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CATHERINE F. DUGAN NOTARY PUBLIC OF NEW JERSEY Commission Expires 1/17/2007

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PATENT REEL: 013745 FRAME: 0734

Nina Owschimikow

Date: 1 23 03

United States of America)

State of) ss.:

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County of

On this ______ day of ______,20____, before me personally came, Nina Owschlmikow to me known to be the individual described in and who executed the foregoing Instrument, and acknowledged execution of the same.

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Notary Public

SEL

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Date: 1-3-03

United States of America)

State of Ken genny) ss.: County of Unin)

described in and who executed the foregoing instrument, and acknowledged execution of the same.

Catherine F Su lotary Public

CATHERINE F. DUGAN NOTARY PUBLIC OF NEW JERSEY Commission Expires 1/17/2007

Lucent Technologies Inc. Docket Administrator (Room 3J-219) Lucent Technologies Inc. 101 Crawfords Corner Road Holmdel, NJ 07733-3030

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PATENT REEL: 013745 FRAME: 0736

RECORDED: 02/12/2003