Form PTO-1595 REC: (Rev. 10/02)	RECORDATION FORM COVER SHEET U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office			
OMB No. 0651-0027 (exp. 6/30/2005) PATENTS ONLY				
Tab settings ➡ ➡ ➡ ▼	▼	▼ ▼	▼	
To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.				
 Name of conveying party(ies): 		2. Name and address	s of receiving party(ies)	
Jony Jiang Liu		Name: United Sta	tes of America	
George J. Simonis		·	as Represented by the	
Additional name(s) of conveying party(ies) attach	ed?Yes. ✓ No	Secretary of the	Army	
3. Nature of conveyance:				
✓ Assignment	lerger		_	
	hange of Name	Street Address: _	· \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
Other				
		City: Washingto	On State: DC Zip:	
09/03/2003 Execution Date:		Additional name(s) & a	ddress(es) attached? Yes V	
4. Application number(s) or patent num	ber(s):		•	
If this document is being filed togethe	r with a new applic	ation, the execution da	ate of the application is:	
A. Patent Application No.(s) 10/655	,634	B. Patent No.(s)		
	Additional numbers atta	ched? Yes No		
5. Name and address of party to whom		6. Total number of app	olications and patents involved:	
concerning document should be maile	ed:		A CONTRACTOR OF THE CONTRACTOR	
Name: Office of Command Coun	sel	7. Total fee (37 CFR 3	3.41) <u>\$</u> 40.00	
U.S. Army Materie Internal Address:	Command	Enclosed		
ATTN: AMCCC-B-IP		Authorized to t	pe charged to deposit account	
Street Address: 9301 Chapek Road		8. Deposit account nu	ımber:	
		,		
		19-2201 U.S. Ar	my Materiel Command	
City: Fort Belvoir State: VA Zip: 2	2060-5527			
DO NOT USE THIS SPACE				
9. Signature.				
William V. Adams	ر میت	4- A-1	12 December 2003	
Name of Person Signing		Signature	Date	
- _ -	finages including cover	signature sheet, attachments, and do	<u> </u>	
Total number of	Passes undering cover	onegų auachments, and do	Gunerra.	

Mail documents to be recorded with required cover sheet information to: Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

	ITAL SIGNATURE SHEET (PAR 27-60; the proponent agency is OTJAG
	and 2874-R when additional signature blocks are needed.
1. ASSIGNOR(s) OR LICENSOR(s) NAME(s)	2. APPLICATION SERIAL NUMBER
Jony Jiang Liu; George J. Simonis	Atty doc # ARL 03-0
	3. FILING DATE
4. TITLE OF INVENTION OPTICAL TRANSMITTERS AND INTERCONNE MICRO-OPTICAL ELEMENTS	ECTS USING SURFACE-EMITTING LASERS AND
SIGNATURE OF INVENTOR:	2 Simones
(First name)	(Middle initial) (Last name)
DUTY ADDRESS: US ARL AMSRL-SE-EM, A	Adelphi, Montgomery, MD 20783-1197
DATE SIGNED:	INVENTOR'S TYPED NAME: George J. Simonis
* * * Maryland	* * * * * * * * * *
STATE OF)	
COUNTY OF Montgomery	\$S.
rce act and deed.	My Commission expires on December 1, 2003
White the state of	<u> </u>
SIGNATURE OF INVENTOR:	(Middle Initial) (Lost name)
	(Middie (nițial) (Lest name)
DUTY ADDRESS:	
DATE SIGNED:	NVENTOR'S TYPED NAME:
* * *	***
STATE OF	
COUNTY OF	s.
On the above date executed the foregoing instrument duly appeared before free act and doed.	known to mo to be the individual described in and who re mo and acknowledged to me that he oxecuted tho same as his own
(SEAL)	
₹	(Signature of notary public)
	My Commission expires on

DA FORM 4230-R, APR 93

REPLACES DA FORM 4230-R, MAR 74, WHICH IS OBSOLETE

Pago 2 of 2 Pages

ASSIGNMENT OF INVENTION

For use of this form, see AR 27-60; the proponent agency is OTJAG

Title of Invention: OPTICAL TRANSMITTERS AND INTERCONNECTS USING SURFACE-EMITTING						
Inventor(s) Jony Jiang Liu; George J. Simonis						
*Application Serial No.:		,	Attorney Docket # ARL 03-03			
*Date Qath Executed:		*Filing Date:	· · · · · · · · · · · · · · · · · · ·			
(*Data not known at execution may be added for botter identification.)						
I (We), the undersigned inventor(s), in consideration of the rights of the Government of the United States acquired by virture of the circumstances under which the above-entitled invention was made, hereby:						
1. Assign to the Government of the United States, as represented by the Secretary of the Army, the entire right, title and interest throughout the United States, its Territories, Possessions, and Puerto Rico, in and to the above-ontitled invention and application for patent and all Letters Patent issuing thereon, and any continuation, continuation-in-part or division of said application and any reissue or extension of said Letters Patent.						
2. Agree to assign to the Government upon its request, title and interest in the invention in those foreign countries in which the Government, within eight months of the filing of the United States application for patent, determines to cause an application to be filed; provided that if the Government determines not to cause an application to be filed in any particular foreign country or fails to make such a determination, within the said eight months, all right, title and interest in the invention in such foreign country shall remain in me (us), subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent which may issue on the invention in such foreign country, including the power to issue sublicenses for use in behalf of the Government and/or furtherance of the foreign policies of the Government.						
 Agree to provide any further information within my (our) knowledge and to execute any further documents necessary to the prosecution of patent applications on the invention, the prosecution and settlement of interferences and recording of title to patent applications and patents issuing thereon. 						
Signature of Inventor:	(First name)	9.	Li			
	(First neme)	(Middle Initial)	(Last name)			
Duty Address: U.S. ARL	., AMSRL-SE-EM, Adelphi	Montgomery (County)	Maryland 20783-1197			
Date: Sept. 3, 2003 Typed Name of Inventor: Jony Jiang Liu						

State of: Maryland County of: Montgomery) ss					
On the above date Jony Jiang Liu known to me to be the individual described in and who executed the foregoing instrument duly appeared before me and acknowledged to me that the same as his own free act and deed.						
CHANGE T SEALO	<u>.</u>	Caroles	L Bourget			
		´ (Signa	ture of notary public)			
200		My Commission expire	es on December 1, 2003			

DA FORM 2874-R APR 93

REPLACES DA FORM 2874-R, MAR 74, WHICH IS OBSQUETE

Page /

of \mathcal{Z}

Pages

PATENT USAPPO V2.00

RECORDED: 12/12/2003

REEL: 014191 FRAME: 0570