

ID#102159580A)



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To: Honorable Commissioner of Patents and Trademarks:

		Please record the attached original document(s) or copy thereof.	
	1.	Name of conveying party(ies) a) JING-JONG PAN b) MIN ZHOU c) HONG-XI ZHANG d) FENG-QING ZHOU	
	2.	Name and address of receiving party(ies): a) Name: LIGHTWAVES 2020, INC. b) Address: 1323 Great Mall Drive, Milpitas, CA 95035-8037	OPR/FIN
	3.	Nature of conveyance Assignment	2013 SEP -3 PM 2: 41 OPR/FINANCE
	4.	Application Number(s) or Patent Number(s): 10/068,794	
		The title of the (new) application is:	
		MINIATURE CIRCULATOR ARRAY DEVICES AND METHODS OF MA	KING THE SAME
	5.	Please send all correspondence concerning this (these) documents to: Customer No. 26541 Ritter, Lang & Kaplan LLP 12930 Saratoga Ave., Suite D1 Saratoga, CA 95070 (408) 446-8690 (PH) (408) 446-8691 (FX)	
•	6.	Total number of applications and patents involved: 1	
,	7.	Total fee (37 CFR 3.41): \$40.00 Enclosed Any deficiencies are hereby authorized to be charged to Deposit Account No. 50-1652 (Order No. LWAVP009)	
8 1	s a true	To the best of my knowledge and belief, the foregoing information is true and core copy of the original document.	rrect and any attached copy
09/04/2003 DB 01 FC:8021	Date:	August 28, 2003 O0000052 10068794 40.00 QP	
	\frac{1}{2}		
A	Attorne	ey Docket No. LWAVP009	(Revised 01/96)

PATENT REEL: 014447 FRAME: 0784

(Revised 01/96)

Attorney Docket No.: 020858-000900

ASSIGNMENT OF UTILITY PATENT APPLICATION

JOINT

WHEREAS, Jing-Jong Pan, of 978 Westridge Drive, Milpitas, California 95035; Ming Zhou, of 1515 Stubbins Way, San Jose, California 95132; Hong-Xi Zhang, of 1290 Quincy Drive, No. 5, San Jose, California 95132; and Feng-Qing Zhou, of 1199 Burnham Drive, San Jose, California 95132; hereinafter referred to as "Assignors", are the inventors of the invention described and set forth in the below-identified utility patent application:

Title of Invention: MINIATURE CIRCULATOR ARRAY

DEVICES AND METHODS OF MAKING THE

SAME

Filing Date: February 6, 2002

Application No.: 10/068,794; and

WHEREAS, Lightwaves 2020, Inc., a corporation of the State of California, located at 1323 Great Mall Drive, Milpitas, California 95035, hereinafter referred to as "Assignee," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on any patent application claiming priority from the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on any patent application claiming priority from the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that Assignors will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain

PATENT REEL: 014447 FRAME: 0785

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Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignors have signed their names on the date indicated.

Dated: 1/17/02

Dated: 5/17/02

Dated: 5/18/2002

Dated: 5/17/02

Jing-Jong Pan

Ming Zhou

Hong-Xi Zhang

Feng-Oing Zhou

Witnesses:

PATENT

REEL: 014447 FRAME: 0786

JEFFREY OLSEN, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

RECORDED: 08/28/2003

PATENT REEL: 014447 FRAME: 0787