



03-21-2002



Attorney Docket No. 20858-001800US

FORM PTO-1595 (Rev. 6-93)

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U.S. Department of Commerce Patent and Trademark Office

To the Honorable Asst. Commissioner for Patents. Please record the attached original documents or copy thereof

1. Name of conveying party(ies):
 Jing-Jong Pan and Hai-Ming Wu
 Additional name(s) of conveying parties attached?
 Yes No **3-13-02**

2. Name and address of receiving party(ies)
 Name: Lighwaves 2020, Inc.
 Internal Address:
 Street Address: 1323 Great Mall Drive
 City: Milpitas State: CA ZIP: 95035
 Additional names and addresses attached?
 Yes No

3. Nature of conveyance:
 Assignment Merger
 Security Agreement Change of Name
 Other:
 Execution Date: February 19, 2002

4. Application Number(s) or Patent Numbers.
 If this document is being filed together with a new application, the execution date of the application is:
 A. Patent Application No(s): 10/005,890 B. Patent No(s):
 Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:
 Name: Gary T. Aka, Esq.
 LAW OFFICES OF GARY T. AKA
 12930 Saratoga Avenue, Suite D1
 Saratoga, California 95070
 (650) 564-9888

6. Total number of applications and patents involved 1
 7. Total fee (37 CFR 3.21(h)): **\$40.00**
 Enclosed Charge Fees to Deposit Account
 Charge any additional fees associated with this paper or during the pendency of this application, or credit any overpayment, to deposit account.
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9. Statement and signature.
To the best of my knowledge and belief, the foregoing is true and correct and any attached copy is a true of copy of the original document.
 Gary T. Aka _____ *Gary T. Aka* _____ March 2, 2002
 Name of Person Signing Signature Date
 Atty Reg. No. 29,038 Total number of pages including cover sheet, attachments and document 2

10. Change Correspondence Address to that of Part 5? Yes No

OMB No. 0651-0011 (exp. 4/94)

Mail documents to be recorded with required cover to:
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PATENT REEL: 012685 FRAME: 0416

ASSIGNMENT OF UTILITY PATENT APPLICATION

JOINT

WHEREAS, **Jing-Jong Pan**, of 978 Westridge Drive, Milpitas, California 95035; and **Hai-Ming Wu**, of 2291 Pinard Street, Milpitas, California 95035; 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: **CHOLESTERIC LIQUID CRYSTAL CELL
DEVICES AND SYSTEMS**

Filing Date: **December 5, 2001**

Application No.: **10/005,890; 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

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: 2/27/02

Jing-Jong Pan
Jing-Jong Pan

Dated: 2/27/02

Hai-Ming Wu
Hai-Ming Wu

Witnesses:

Carol S. Wang
Shy-Min Lee