| FORM PTO-1595 | 04-19-1999 :RC |
|--|--|
| 1-31-92 RECORDATION FOR PATENTS O | |
| 1. Name of conveying party(ies): | 2. Name and add |
| Clinton C. Chao Daniel J. Miller | HEWLETT-PACKARD COMPANY Legal Department, M/S 20BN 3000 Hanover Street Palo Alto, CA 94304 |
| Additional name(s) of conveying party(ies) attachedYes _X_ No | Additional name(s) & address(es) attached?Yes _X_ No |
| 3. Nature of Conveyance: | |
| X Assignment Merger | Change of Name |
| Security Agreement Other | |
| Execution Date(s): November 19, 1998 | |
| 4. Application number(s) or patent number(s): | |
| If this document is being filed together with a new appli | cation, execution date of the application is: |
| A. Patent Application No.(s) | B. Patent No.(s) |
| Serial No.: 09/196,939 Date Filed: 11/20/98 | |
| Additional numb | ers attached? NO |
| 5. Name and address of party to whom correspondence concerning document should be mailed: | 6. Total number of applications and patents involved: 1 |
| Records Manager | 7. Total Fee (37 CFR 3.41): \$40.00 |
| HEWLETT-PACKARD COMPANY Legal Department, M/S 4U-10 | Enclosed |
| 1501 Page Mill Road Palo Alto, CA 94304 | X Authorization to be charged to deposit account. |
| | 8. Deposit Account Number: 08-2025 |
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| Statement and signature. To the best of my knowledge and belief, the foregoing in true copy of the original document. | nformation is true and correct and any attached copy is a |
| Leonor S. Tuck Name of Person Signing Signature | Apr 06, 1999 Date |
| | g cover sheet, attachments, and document: 3 |
| OMB No. 0651-0011 (exp. 4/94) | |
| | ch this portion |

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PATENT REEL: 9886 FRAME: 0408

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ATTORNEY DOCKET NO. 10980058-1

HEWLETT-PACKARD COMPANY Legal Department, 20BN P. O. Box 10301 Palo Alto, California 94303-0890

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to HEWLETT-PACKARD COMPANY, a Delaware corporation having its principal place of business in Palo Alto, California, (hereinafter HP), in furtherance of my/our obligations to HP, and do hereby assign and transfer to HP, its

| successors and assigns, the entire right, title an application for Letters Patent of the United | and interest, including the right of priority, in, to and under States entitled: |
|---|---|
| Planar Multilayer Ceramic Structures with Nea | r Surface Channels |
| Filing date: November 20, 1998 | Serial No.: 09/196,939 |
| continuations-in-part (C-I-P's), divisionals, and Letters Patent, and any and all Letters Patent | set forth therein, and any and all continuations, d renewals of and substitutes for said application for said of the United States and of countries foreign thereto which reissues, or reexaminations, or extensions of said Letters |
| be held and enjoyed by HP, its successors, as the term or terms for which said Letters Pat | cations in my/our name for Letters Patent in any country, to ssigns, nominees or legal representatives, to the full end of tent respectively may be granted, reissued or extended, as been held and enjoyed by me/us had this assignment, and |
| that I/we have not executed and will not execovenant and agree that I/we will, each time deliver all such papers as may be necessar improvement(s), said application and said Le legal representatives, and I/we agree to comm said invention(s) or improvement(s), said approceedings, to sign all lawful papers, to exercissue and foreign applications, to make everything possible to aid HP, its successors, enforce, for its or their own benefit, proper page 1. | e full right to convey the entire interest herein assigned, and ecute any agreement in conflict herewith, and I/we further a request is made, and without undue delay, execute and ry or desirable to perfect the title to said invention(s) or etters Patent, to HP, its successors, assigns, nominees or nunicate to HP, or to its nominee, all known facts respecting oplication and said Letters Patent, to testify in any legal ecute all disclaimers and divisionals, continuations, C-I-P's, all rightful oaths and declarations, and generally to do, assigns, nominees and legal representatives to obtain and patent protection for said invention(s) or improvement(s) in which may be incurred by me/us in lending such cooperation |
| States and any official of any country or cour patents on applications as aforesaid, to issue and all Letters Patent for said invention(s) or | the Commissioner of Patents and Trademarks of the United ntries foreign to the United States whose duty it is to issue to HP, as assignee of the entire right, title and interest, any improvement(s), including any and all Letters Patent of the ranted on or as a result of the application aforesaid, in . |
| application now identified by the attorney doo shall have been made known to them by the U | |
| nventer's Signature (Seal) | Date Assignment Signed: Nov 19, 1998 |
| nventor's Typed Name: Clinton C. Chao | Date Application Signed: Nov 19, 1998 |
| State of California) | · · |
| County of Santa Clara) | |
| Before me this 19 day of November, 1998, personally known or proved to me on the basis of sainstrument of assignment to be his/her free act and deed. | personally appeared Clinton C. Chao who is- tisfactory evidence to be the person who acknowledged the foregoing |
| d — Pigg Commi TyrePigen Nordry P. | NOR S. TUCK Sision # 1162084 Upilic - California Clara County |
| | Fight Res (signature(s)) Page 1 of 2 |

Rev 04/98 (Assign)

Page 1 of 2

PATENT

REEL: 9886 FRAME: 0409

PATENT APPLICATION ATTORNEY DOCKET NO. ___10980058-1___

ASSIGNMENT OF PATENT APPLICATION (cont.)

IN WITNESS WHEREOF, I we hereunto set my/our hand(s) and seal(s): Date Assignment Signed: // / 9 f Inventor's Typed Name: Daniel J. Miller Date Application Signed: 1/ /9 9 } State of California) ss.: County of Santa Clara Before me this 9 day of November, 1998 , personally appeared to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

LEONOR S. TUCK

Commission # 1162084

Notary Public - California Santa Ciara County

My commission expires: Dec. 16, 2001 Santa Ciara County My Comm. Expires Dec 16, 2001 Our Self Massignment Signed: 19 NOS 98 Date Application Signed: ________98 Inventor's Typed Name: Hubert A. VanderPlas State of California) ss.: County of Santa Clara Before me this $\frac{Q}{Q}$ day of November, 1998, personally appeared Hubert A. VanderPlas who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed. LEONOR S. TUCK Commission # 1162084 Notary Public - California My commission expires: Dec. 16, 2001 Santa Ciara County My Comm. Expires Dec 16, 2001 _____ Date Assignment Signed:_____ Inventor's Signature (Seal) Inventor's Typed Name: _____ Date Application Signed: _____ State of County of , personally appeared _____ Before me this ____ day of _ personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed. Notary Public My commission expires:

(Use Page Three For Additional Inventor(s) Signature(s))

Page 2 of 2

PATENT REEL: 9886 FRAME: 0410