PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5011403

| SUBMISSION TYPE: | NEW ASSIGNMENT | |
|-----------------------|----------------|--|
| NATURE OF CONVEYANCE: | ASSIGNMENT | |

CONVEYING PARTY DATA

| Name | Execution Date |
|----------------|----------------|
| STEVEN BARCELO | 07/14/2015 |
| NING GE | 07/14/2015 |
| ZHIYONG LI | 07/15/2015 |

RECEIVING PARTY DATA

| Name: | Hewlett-Packard Development Company, L.P. | | |
|-----------------|---|--|--|
| Street Address: | 11445 Compaq Center Drive West | | |
| City: | Houston | | |
| State/Country: | TEXAS | | |
| Postal Code: | 77070 | | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15569767 |

CORRESPONDENCE DATA

Fax Number: (970)778-4063

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

(541)715-8443 Phone: Email: ipa.mail@hp.com

HP INC. **Correspondent Name:**

Address Line 1: 3390 E. HARMONY ROAD MS 35 Address Line 2: INTELLECTUAL PROPERTY

Address Line 4: FORT COLLINS, COLORADO 80528

ATTORNEY DOCKET NUMBER: 84685133 NAME OF SUBMITTER: **HEATHER MULKEY** SIGNATURE: /Heather Mulkey/ **DATE SIGNED:** 06/18/2018

Total Attachments: 2

source=84685133-A#page1.tif source=84685133-A#page2.tif

> **PATENT** REEL: 046119 FRAME: 0822 504964657

HEWLETT-PACKARD COMPANY Intellectual Property Administrator 3404 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80528

| PA | ** | 20.67 | ~ A | 202 | S 54 | ~ X | *** | · 14 |
|------|-----|-------|-----|-------|------|------|-----|-------|
| 7.75 | 2.2 | 120 | | 2. 2. | | ~~ · | 8.8 | 4.053 |

| RECORD ID: | 84261467 |
|------------|----------|
| | |

ASSIGNMENT OF PATENT APPLICATION

| and in furtherance of my Limited Partnership havir subsidiaries and affiliates, | /our obligations to HEWLE ig its principal place of bu agree to assign and transfer | e consideration, the receipt of which TT-PACKARD DEVELOPMENT (siness in Houston, Texas, (here and hereby assign and transfer to se right of priority, in, to and under | COMPANY, L.P., a Texas inafter HPDC), and to its HPDC, its successors and |
|--|--|---|---|
| STRUCTURES FOR SUR | FACE ENHANCED RAMAN | SPECTROSCOPY | |
| Filing Date: July 20, 2 | 015 | Application No.: PCT/US | S2015/041125 |
| divisionals, and renewals | of and substitutes for said ap | n, and any and all continuations, o plication for said Patent, and any fore; and any reissues, or reexamin | and all other Patent of any |
| by HPDC, its successors, a Patent respectively may be | assigns, nominees or legal re | n my/our name for Patent in any con presentatives, to the full end of the id, as fully and entirely as the same ten made; | term or terms for which said |
| executed and will not executime a request is made, and perfect the title to said invention or improvement, to execute all distribution of the company of the | Ite any agreement in conflict to without undue delay, execute intion(s) or improvement(s), sa tatives, and I/we agree to companent(s), said application and plaimers and divisionals, contions, and generally to do ever to obtain and enforce, for its or do all countries provided the are paid by HPDC; orize and request the official. | convey the entire interest herein ass erewith, and I/we further covenant a and deliver all such papers as may id application and said Patent, to HF imunicate to HPDC, or to its nomine said Patent, to testify in any legal p nuations, C-I-P's, reissue and forei ything possible to aid HPDC, its su- their own benefit, proper patent prot expenses which may be incurred of any country or countries whose in or of the entire right, title and interes | and agree that I/we will, each be necessary or desirable to PDC, its successors, assigns, e. all known facts respecting troceedings, to sign all lawfulgn applications, to make all ccessors, assigns, nominees ection for said invention(s) or by me/us in lending such duty it is to issue patents on |
| | nt(s) which may be issued a | ind granted on or as a result of | |
| | | record to insert the filing date and I title set forth above, as soon as the | |
| | | | |
| www.neas.wnene | DF, I/we hereunto set my/ou | n nanu(z) and seal(z): | |
| A | | 7/141 | (5 |
| Inventor's Si gnature | | Date | |
| Steven | Sarcelo | | |
| First/Middle Name | Last Name | ······································ | |
| Amminimum An Alemanimum | mannaman (1977) | | e albertajan ili dababasel. Pari kase |
| Inventor's Signature | | | · 5832 |
| Section and Assessment | | | |
| Ning | Ge | | |
| First/Middle Name | Last Name | | |
| Rev 8/2014 (Assignment) | Pa | ge 1 of 2 | |

PATENT REEL: 046119 FRAME: 0823 HEWLETT-PACKARD COMPANY Intellectual Property Administrator 3404 E. Harmony Road Mail Stop 35

PATENT APPLICATION

RECORD ID: Fort Collins, Colorado 80528 ASSIGNMENT OF PATENT APPLICATION (cont.) Inventor's Signatyce Zhiyong First/Middle Name Date Inventor's Signature Inventor's Signature Inventor's Signature First/Middle Name Last Name Inventor's Signature Date First/Middle Name Last Name

Page 2 of 2

Rev 8/2014 (Assignment)

RECORDED: 06/18/2018