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U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

	103108	Attorney Docket No. <u>200403316-1</u>
Name of conveying party(ies):		2. Name and address of receiving party(ies):
M. Saif Islam		HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.
Shih-Yuan Wang		20555 SH 249
R. Stanley Williams		Houston, TX 77070
		S. S
		010
		₹.
Additional name(s) of conveying party(ies) attached _	Yes 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): 9/29/05; 9/26/05; 10/1		
4. Application number(s) or patent number(	s):	
If this document is being filed together wit	h a new appli	cation, execution date of the application is: 10/14/05
A. Patent Application No.(s)		B. Patent No.(s)
Application No.:	Date Filed:	
Confirmation No.: Ad	ditional numbe	ers attached? NO
5. Name and address of party to whom concerning document should be mailed:	respondence	6. Total number of applications and patents involved: 1
Records Manager		7. Total Fee (37 CFR 3.41): \$40.00
Intellectual Property Administration HEWLETT-PACKARD COMPANY		Enclosed
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Fort Collins, Colorado 80527-2400		Authorization to be sharged to deposit decount
		8. Deposit Account Number: 08-2025
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9. Statement and signature.		
-	he foregoing i	information is true and correct and any attached copy is a
true copy of the original document.		
	10 1	
Edgar R. Cataxinos	Madle	Oct 17, 2005
Name of Person Signing	Signature /	Date
Total number	of pages inclu	ding cover sheet, attachments, and document:7
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Alexandria, VA 22313-1450

HEWLETT-PACKARD COMPANY Intellectual Property Administrator P. O. Box 272400 Fort Collins, Colorado 80527-2400

PATENT APPLICATION ATTORNEY DOCKET NO. 200403316-1

#### ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPDC), in furtherance of my/our obligations to the Hewlett-Packard

and assigns, the entire	liaries and affiliates, and do right, title and interest, atent of the United States e	hereby assign ar including the righ	id transfer to HPD(	te europapare
	SEPARATION AMONG NA	NOPARTICLES F	OR NANO ENHAN	ICED RAMAN
SPECTROSCOPY (NERS	MOLECULAR SENSING			
Filing date:		Application No.:		
continuations-in-part (C- Letters Patent, and any	and improvement(s) set (I-P's), divisionals, and rend and all Letters Patent of the or therefor; and any reise	ewals of and subs United States an	stitutes for said app d of countries foreign	olication for said
the full end of the term	authorize HPDC to file app enjoyed by HPDC, its succ or terms for which said Le entirely as the same wou r not been made;	essors, assigns, n tters Patent respe	ominees or legal re ctively may be grad	presentatives, to
that I/we have not exect covenant and agree that deliver all such papers improvement(s), said ap legal representatives, a respecting said invention legal proceedings, to si C-I-P's, reissue and fore everything possible to a and enforce, for its or the covenant agreement of the covenant agreement of the covenant agreement of the covenant agreement agreement of the covenant agreement agreement of the covenant of the cove	venant that I/we have full ricuted and will not execute to I/we will, each time a request as may be necessary or plication and said Letters Production and said Letters Production and said Letters Production or improvement(s), said gn all lawful papers, to make a said HPDC, its successors, and HPDC, its successors, are rown benefit, proper particles provided the expenses once are paid by HPDC;	any agreement in uest is made, and desirable to perform atent, to HPDC, it sicate to HPDC, of application and six ecute all disclain ill rightful oaths au assigns, nominees tent protection for	conflict herewith, i without undue de ct the title to said is successors, assign to its nominee, said Letters Patent, ners and divisionals and legal represensaid invention(s) of	and I/we further lay, execute and dinvention(s) or gns, nominees or all known facts to testify in any s, continuations, digenerally to do tatives to obtain r improvement(s)
States and any official of patents on applications any and all Letters Pater	uthorize and request the Co of any country or countries as aforesaid, to issue to Hi nt for said invention(s) or in may be issued and grant ms of this assignment,	foreign to the Uni PDC, as assignee on provement(s), inc	ted States whose of of the entire right, to cluding any and all	luty it is to issue title and interest, Letters Patent of
said application now ide	e and direct the attorneys entified by the attorney do ade known to them by the	cket number and 1	title set forth above	as soon as the
IN WITNESS WHERE	EOF, I/we hereunto set my/	our hand(s) and s		
	Date A	asignment Signed:	09-29-0	25
Inventor's Signature (See!)				
Inventor's Typed Name: M. Sa	if Islam	Date Application	Signed: 09-	29-05
State of	) ) 55.;			
County of	)			
Before me this day personally known or proved instrument of assignment to be	to me on the basis of satisfacto	ally appeared M. S ory evidence to be th	saif Islam e person who scknow	who is ledged the foregoing
			Notary Public My aominission expires:	
Rav 12/04 (Assign) :	(Use Page Two For Additional Inve	ntorial Signature(5))		Page 1 of 2

When recorded please return to: HEWLETT-PACKARD COMPANY Intellectual Property Administration P. O. Box 272400 Fort Collins, Colorado B0527-2400

PATENT APPLICATION ATTORNEY DOCKET NO. \_\_200403316-1

### ASSIGNMENT OF PATENT APPLICATION (cont.)

IN WITNESS WHEREOF, I/we hereu	into set my/our i	nand(s) and seal(s):	
	Data A	seignment Staned	
Inventor's Signature (Seal)		asignment orginot	MANUAL TO A STATE OF THE STATE
Inventor's Typed Name: Shih-Yuan Wang		Data Application S	igned:
State of	)		
County of	) 55.; }		
Before me this day of personally known or proved to me on the instrument of assignment to be his/her free	Basis of satisfacto	ally appeared <u>Shih-Yu</u> ory avidence to be the p	an Wang who is erson who acknowledged the foregoing
			Notary Public
			My commission expires:
In a serie Classes (Cool)	Date A	ssignment Signed:	
Inventor's Signature (Seal)			
Inventor's Typed Name: R. Stanley Williams		Date Application S	igned:
State of	} } 58.:		
County of	1 55		
Before me thisday of personally known or proved to me on the instrument of assignment to be his/her free	a basia of satisfact	ally appeared R. Sten	ley Williams who is person who acknowledged the foregoing Notzry Public My commission expires:
Inventor's Signature (Seal)	Date A	şalgnment Signed:	
Inventor's Typed Name:		Data Application S	ioned:
Inventor & Typeo Memor			
State of	) )		
County of	1		
Before me this day of personally known or proved to me on the instrument of assignment to be his/her free	е разіз от выпатыст	sity appeared pry evidence to be the p	who lead the person who acknowledged the foregoing
·			Notary Public My commission expirés:
(Use Page	Three For Additional Inv	remor(s) ನಿತ್ತಣಕಲುಸಕ(ನ))	Page 2 of 2

Rev 12/04 (Assign)

HEWLETT-PACKARD COMPANY Intellectual Property Administrator P. O. Box 272400 Fort Collins, Colorado 80527-2400

Rev 12/04 (Assign)

# PATENT APPLICATION ATTORNEY DOCKET NO. 200403316-1

**ASSIGNMENT OF PATENT APPLICATION** 

I/We, the undersigned (each) have agreed and hereby agree to assign to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPDC), in furtherance of my/our obligations to the Hawlett-Peckard Company and its subsidiaries and affiliates, and do hereby assign and transfer to HPDC, its successors and assigns, the entire right, title and interest, including the right of priority, in, to and under an application for Letters Patent of the United States entitled:

Company and its subsidieries and and assigns, the entire right, titl application for Letters Patent of the	affiliates, and do hereby assign and transfer to HPDC, its successors le and interest, including the right of priority, in, to and under an e United States entitled:
DYNAMIC RANDOM SEPARATIO	ON AMONG NANOPARTICLES FOR NANO ENHANCED RAMAN
SPECTROSCOPY (NERS) MOLECU	LAR SENSING
Filing date:	Application No.:
continuations-in-part (C-I-P's), divi Letters Patent, and any and all Let	rovement(s) set forth therein, and any and all continuations, isionals, and renewals of and substitutes for said application for said tters Patent of the United States and of countries foreign thereto which or; and any reissues, or reexaminations, or extensions of said Letters
country, to be held and enjoyed be the full end of the term or terms	HPDC to file applications in my/our name for Letters Patent in any by HPDC, its successors, assigns, nominees or legal representatives, to for which said Letters Patent respectively may be granted, reissued or as the same would have been held and enjoyed by me/us had this made;
that I/we have not executed and covenant and agree that I/we will deliver all such papers as may be improvement(s), said application a legal representatives, and I/we are specting said invention(s) or implegal proceedings, to sign all law C-I-P's, reissue and foreign applice everything possible to aid HPDC, and enforce, for its or their own be	at I/we have full right to convey the entire interest herein assigned, and will not execute any agreement in conflict herewith, and I/we further I, each time a request is made, and without undue delay, execute and be necessary or desirable to perfect the title to said invention(s) or and said Letters Patent, to HPDC, its successors, assigns, nominees or agree to communicate to HPDC, or to its nominee, all known facts provement(s), said application and said Letters Patent, to testify in any wful papers, to execute all disclaimers and divisionals, continuations, sations, to make all rightful oaths and declarations, and generally to do its successors, assigns, nominees and legal representatives to obtain benefit, proper patent protection for said invention(s) or improvement(s) and the expenses which may be incurred by me/us in lending such aid by HPDC;
States and any official of any coupatents on applications as aforest any and all Letters Patent for said	nd request the Commissioner of Patents and Trademarks of the United Intry or countries foreign to the United States whose duty it is to issue eid, to issue to HPDC, as assignee of the entire right, title and interest, it invention(s) or improvement(s), including any and all Letters Patent of issued and granted on or as a result of the application aforesaid, in assignment.
shid application now identified by	act the attorneys of record to insert the serial number and filing date of y the attorney docket number and title set forth above as soon as the in to them by the United States Patent and Trademark Office.
IN WITNESS WHEREOF, I/we	hereunto set my/our hand(s) and seal(s):
Inventor's Signature (Seal)	Date Assignment Signed:
Inventor's Typed Name: M. Sait Islam	Date Application Signed:
State of	)
County of	) ss.: )
Before me this day of personally known or proved to me on t instrument of assignment to be his/her fre	, personally appeared <u>M. Self Islam</u> who is the basis of satisfactory evidence to be the person who acknowledged the foregoing se act and deed.
	Notery Public
	My convission expires:

Page 1 of 2

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

PATENT

**REEL: 017134 FRAME: 0316** 

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# PATENT APPLICATION ATTORNEY DOCKET NO. 200403316-1

## ASSIGNMENT OF PATENT APPLICATION (cont.)

IN WITN	ESS WHEREOF, I/we hereunto se	et my/our hand(s) and seal(s):
Inventor's	Whiney Way	Dete Assignment Signed: Sept 26, 2005  Dete Application Signed: Sept 26, 2005
Inventor's	Typed Name: Shift-Yuan Wang	Date Application Stands Sent 26, 2005
State of		Sold Paperson Organic
State OI	, ss.:	
County of	1	
personally	me this day of known or proved to me on the basis of assignment to be his/her free act and	, personally appeared Shih-Yuan Wang who is of satisfactory evidence to be the person who acknowledged the foregoing deed.
		Notary Public
		My commission expires:
		Date Assignment Signed:
	Signature (Seal)	
Inventor's	Typed Name: R. Stanley Williams	Date Application Signed:
State of	ř ,	
County of	) #8.; )	
personally		, personally appeared R. Stanley Williams who is of satisfactory evidence to be the person who acknowledged the foregoing deed.
		Notary Public
		My commission expires:
inventor's	Signature (Seal)	Date Assignment Signed:
Inventor's	Typed Name:	Date Application Signed:
State of	)	
County of	) <b>ss</b> .	
personally	me this day of known or proved to me on the basis t of assignment to be his/her free act and	, personally appeared who is of satisfactory evidence to be the person who acknowledged the foregoing deed.
		Notery Public My commission expires:
	(Use Page Three Fo	r Additional inventor(s) Signature(s)) Page 2 of 2

Rev 12/04 (Assign)

Rev 12/04 (Assign)

HEWLETT-PACKARD COMPANY Intellectual Property Administrator P. O. Box 272400 Fort Collins, Colorado 80527-2400

## PATENT APPLICATION ATTORNEY DOCKET NO. 200403316-1

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPDC), in furtherance of my/our obligations to the Hewlett-Packard Company and its subsidiaries and affiliates, and do hereby assign and transfer to HPDC, its successors and assigns, the entire right, title and interest, including the right of priority, in, to and under an application for Letters Patent of the United States entitled:

and assigns, the entire right, title and interest, including the right of priority, in, to and under an application for Letters Patent of the United States entitled:
DYNAMIC RANDOM SEPARATION AMONG NANOPARTICLES FOR NANO ENHANCED RAMAN
SPECTROSCOPY (NERS) MOLECULAR SENSING
Filing date: Application No.:
and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part (C-I-P's), divisionals, and renewals of and substitutes for said application for said Letters Patent, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor; and any reissues, or reexaminations, or extensions of said Letters Patent.
I/we additionally authorize HPDC to file applications in my/our name for Letters Patent in any country, to be held and enjoyed by HPDC, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made;
AND I/we hereby covenant that I/we have full right to convey the entire interest herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further covenant and agree that I/we will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said invention(s) or improvement(s), said application and said Letters Patent, to HPDC, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to HPDC, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, C-I-P's, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid HPDC, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by HPDC;
AND I/we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to HPDC, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.
I/we further authorize and direct the attorneys of record to insert the serial number and filing date of said application now identified by the attorney docket number and title set forth above as soon as the same shall have been made known to them by the United States Patent and Trademark Office.
IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and seal(s):
Date Assignment Signed:
Inventor's Signature (Seal)
Inventor's Typed Name: M. Self Islam Date Application Signed:
State of
County of ) ss.:
Before me this day of, personally appeared M. Saif Islam 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.
Notary Public
My commission expires:

Page 1 of 2

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

When recorded please return to:
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P. O. Box 272400
Fort Collins, Colorado 80527-2400

PATENT APPLICATION
ATTORNEY DOCKET NO. 200403316-1

### **ASSIGNMENT OF PATENT APPLICATION (cont.)**

		Date Assignment Signed:	
Inventor's	Signature (Seal)		
Inventor's	Typed Name: Shih-Yuan Wang	Date Application Signed:	
State of			
		85.:	
County of	'		
	me this day of known or proved to me on the of assignment to be his/her free a	, personally appeared <u>Shih-Yuan Wang</u> sis of satisfactory evidence to be the person who acknow	who is viedged the foregoing
		Notary Public My commission expires	
		tash continuesans mobili et	•
RIST	alghelder-	Date Assignment Signed: Octob	14, 2003
Inventor's	Signature (Seel)	Date Application Street Octob	ac 14 2005
		Date Application Signed: 2240-3	
State of		88.:	
County of			
personally	me this day of known or proved to me on the t of assignment to be his/her free a	, personally appeared R. Stanley Williams usis of satisfactory evidence to be the person who acknowledged.	who is wledged the foregoing
		Notary Public	
		My commission expire	Di:
<del></del>	Ciana (Carl)	Date Assignment Signed:	
	Signature (Seal)		
Inventor's	Typed Name:	Date Application Signed:	
State of			
County of		<b>95.</b> :	
,			who is
personally	a me this day of known or proved to me on the t of assignment to be his/her free a	, personally appeared	
		Notery Public	
		My commission expire	<b>15</b> :
		e For Additional Inventor(s) Signature(s))	Page 2 of 2

Rev 12/04 (Assign)

**RECORDED: 10/17/2005**