FORM PTO-1595 (Rev. 3-01)			R SHEET	U.S. Department of Commerce Patent and Trademark Office	e
OMB No. 0651-0027 (exp.5/31/2002)	1027118	321			2
To the Honorable Comm	issioner of Patents and Tradema		the attached original d	ocuments or copy thereof.	8.P 328
 Name of conveying party(ies 10/449,278 10/449,278 Tapesh Yadav 03/19/1999 Ming Au 03/22/1999 Bijan Miremadi 03/19/1999 Evan Franke 03/19/1999 John Alexander 03/19/1999 Yuval Avniel 03/18/1999 John Freim 03/22/1999 Roger Dirstine 03/23/1999 Clayton Kostelecky Additional name(s) of conveying party(ies) at Nature of conveyance: Assignment Security Agreement Other 	09/790,036 05/20/1998 05/21/1998 05/21/1998 05/21/1998	Name: Nar Street addr Longmont,	and address of re- noProducts Corpor ess: 14330 Longs Colorado 80504 mal name(s) & address	ration Peak Court s(es) attached? TYes X No	10/811
 4. Application number(s) or pat If this document is being file 	ent number(s):	lication, the exe	ecution date of the	3/29/04 application is:	
A. Patent Application No.(s)		B. Pa	tent No.(s)		
5. Name and Address of party tr	hed? Yes No	6. Total	number of applica	10811625 tions and patents involved	l: 1
mailed: Name: <u>Stuart T. Langley</u> Internal Address: <u>Hogan &</u> One Tabor	Hartson LLP Center Treset, Suite 1500 above	🖂 Er	fee (37 CFR 3.41) inclosed uthorized to be ch	\$ <u>40.00</u> arged to deposit account	
/2004 LWONDIM1 00000007 501123 108 ::8021 40.00	.1628 JP	50	sit account number 123 duplicate copy of this	r: page if paying by deposit accou	nt)
DO NOT USE THI	s space				
9. Statement and signature. To the best of my knowledge copy of the original documen <u>Stuart T. Langley</u> Name of Person signing		information is t	rue and correct an 329 Date	ad any attached copy is a t	rue

PO Box 1450, Alexandria, VA 22313-1450

FORM PTO-1595	RECORDATION FO	RM COVER SHEET U.S. DEPARTMENT OF COMMER Patent and Trademark Of
(Rev. 6-93) OMB No. 0651-0011 (exp. 4/94)	PATENT	
Tab settings = = = ▼		
	er of Patents and Trademarks: F	Please record the attached original documents or copy thereof.
 3. Bijan Miremadi 4. Evan Franke Additional name(s) of conveying party(ies) 3. Nature of conveyance: 2 Assignment 2 Security Agreement 2 Other 	8. Roger Dirstin attached? I Yes I No I Merger I Change of Name	e Internal Address:
If this document is being filed to A. Patent Application No.(s) 09/274,517		Additional name(s) & address(es) attached any Yes I No I hereby certify that this correspondence as first In the deposited with the United States Postal Service as first on, the deposited with the United states Postal Service as first class first for participation of the service as the service as first BCOM at the service as the
5. Name and address of party to v concerning document should be	-	6. Total number of applications and patents involved:
Name: Valarie Rosen		7. Total fee (37 CFR 3.41)\$ 40.00
Internal Address: Choate, 1	Hall & Stewart	21 Enclosed
Exchange Place		 Authorized to be charged to deposit account
Street Address: 53 State State State State State State		8. Deposit account number: <u>03-1721</u> (Attach duplicate copy of this page if paying by deposit account)
	DO NOT US	
9. Statement and signature. To the best of my knowledge and the original document. <u>Elizabeth E. Mager</u> Name of Person Signing	at Cit	nation is true and correct and any attached copy is a true cop 5/26/99 Signature Date cover sheet, attachments, and document:

<u>ASSIGNMENT</u>

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned

NAME: Tapesh Yadav

, hereby

Sell, assign and transfer to Nanomaterials Research Corporation, having a place of business at 2620 Trade Center Avenue, Longmont, CO 80503, its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions which are disclosed in the application for United States Letters Patent filed on

FILE DATE	03/22/99 3/23/99	CEN
SERIAL NO.	09/274, 517	ECN
ENTITLED	Materials and Products Using Nan	ostructured Non-Stoichiometric Substances

(authorization is given to the ASSIGNEE and its counsel to fill in date and serial number) and in and to said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said inventions; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority.

Agree that said ASSIGNEE may apply for and receive Letters Patent for said inventions in its own name; and when requested, without charge to but at the expense of said ASSIGNEE, agree to carry out in good faith the intent and purpose of this assignment by executing all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to said ASSIGNEE all facts known to us relating to said inventions and the history thereof, and generally by doing everything possible which said ASSIGNEE shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said ASSIGNEE.

Hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said ASSIGNEE.

Covenant with said ASSIGNEE that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us, and that full right to convey the same as herein expressed is possessed by us.

Date and G. Horlien 3/19/99 Jate 3/19/99 Date 3/19/89

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned

NAME:	Bijan	Mirema	di
-------	-------	--------	----

, hereby

Sell, assign and transfer to Nanomaterials Research Corporation, having a place of business at 2620 Trade Center Avenue, Longmont, CO 80503, its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions which are disclosed in the application for United States Letters Patent filed on

FILE DATE	03/22/99	3/23/99	221	
SERIAL NO.		09/274,517	cen.	

ENTITLED Materials and Products Using Nanostructured Non-Stoichiometric Substances

(authorization is given to the ASSIGNEE and its counsel to fill in date and serial number) and in and to said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said inventions; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority.

Agree that said ASSIGNEE may apply for and receive Letters Patent for said inventions in its own name; and when requested, without charge to but at the expense of said ASSIGNEE, agree to carry out in good faith the intent and purpose of this assignment by executing all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to said ASSIGNEE all facts known to us relating to said inventions and the history thereof, and generally by doing everything possible which said ASSIGNEE shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said ASSIGNEE.

Hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said ASSIGNEE.

Covenant with said ASSIGNEE that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us, and that full right to convey the same as herein expressed is possessed by us.

Wenne

Bijan Miremadi

tnessed By

<u>March 19, 1999</u> Date Date <u>2/19/99</u>

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned

NAME: Evan Franke

, hereby

Sell, assign and transfer to Nanomaterials Research Corporation, having a place of business at 2620 Trade Center Avenue, Longmont, CO 80503, its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions which are disclosed in the application for United States Letters Patent filed on

FILE DATE	03/22/99	3/23/99	[2]	
SERIAL NO.		09/274, 513	7 2827	
ENTITLED	Materials a	nd Products Using Nano	structured Non-S	toichiometric Substances

(authorization is given to the ASSIGNEE and its counsel to fill in date and serial number) and in and to said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said inventions; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority.

Agree that said ASSIGNEE may apply for and receive Letters Patent for said inventions in its own name; and when requested, without charge to but at the expense of said ASSIGNEE, agree to carry out in good faith the intent and purpose of this assignment by executing all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to said ASSIGNEE all facts known to us relating to said inventions and the history thereof, and generally by doing everything possible which said ASSIGNEE shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said ASSIGNEE.

Hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said ASSIGNEE.

Covenant with said ASSIGNEE that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us, and that full right to convey the same as herein expressed is possessed by us.

3/19/99
Date
3/19/99
Date
3/19/97
Date

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned

NAME: John Ale	exander
----------------	---------

, hereby

Sell, assign and transfer to Nanomaterials Research Corporation, having a place of business at 2620 Trade Center Avenue, Longmont, CO 80503, its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions which are disclosed in the application for United States Letters Patent filed on

FILE DATE	0 3/22/99	3/23/99	EEN	
SERIAL NO.		09/274,517	een	
ENTITLED	Materials a	nd Products Using Nan	ostructured No	n-Stoichiometric Substances

(authorization is given to the ASSIGNEE and its counsel to fill in date and serial number) and in and to said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said inventions; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority.

Agree that said ASSIGNEE may apply for and receive Letters Patent for said inventions in its own name; and when requested, without charge to but at the expense of said ASSIGNEE, agree to carry out in good faith the intent and purpose of this assignment by executing all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to said ASSIGNEE all facts known to us relating to said inventions and the history thereof, and generally by doing everything possible which said ASSIGNEE shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said ASSIGNEE.

Hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said ASSIGNEE.

Covenant with said ASSIGNEE that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us, and that full right to convey the same as herein expressed is possessed by us.

John Alexander

3/19/99 Date 3/12/89 Date 3/19/99

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned

NAME: Yuval Avniel

, hereby

Sell, assign and transfer to Nanomaterials Research Corporation, having a place of business at 2620 Trade Center Avenue, Longmont, CO 80503, its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions which are disclosed in the application for United States Letters Patent filed on

FILE DATE	03/22/99 3/23/99	ECN
SERIAL NO.	09/274, 517	cen
ENTITLED	Materials and Products Using Nanc	ostructured Non-Stoichiometric Substances

(authorization is given to the ASSIGNEE and its counsel to fill in date and serial number) and in and to said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said inventions; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority.

Agree that said ASSIGNEE may apply for and receive Letters Patent for said inventions in its own name; and when requested, without charge to but at the expense of said ASSIGNEE, agree to carry out in good faith the intent and purpose of this assignment by executing all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to said ASSIGNEE all facts known to us relating to said inventions and the history thereof, and generally by doing everything possible which said ASSIGNEE shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said ASSIGNEE.

Hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said ASSIGNEE.

Covenant with said ASSIGNEE that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us, and that full right to convey the same as herein expressed is possessed by us.

03-18.	- 95
Date	
31899 Date	
Date	\ \
<u> </u>	
Date	

Date

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned

NAME: Ming Au

, hereby

Sell, assign and transfer to Nanomaterials Research Corporation, having a place of business at 2620 Trade Center Avenue, Longmont, CO 80503, its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions which are disclosed in the application for United States Letters Patent filed on

FILE DATE	<u>03/22/99-</u>	3/23/99	ETT	
SERIAL NO.		09/274,51	7 2812	
ENTITLED	Materials a	nd Products Using 1	Nanostructured	Non-Stoichiometric Substances

(authorization is given to the ASSIGNEE and its counsel to fill in date and serial number) and in and to said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said inventions; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority.

Agree that said ASSIGNEE may apply for and receive Letters Patent for said inventions in its own name; and when requested, without charge to but at the expense of said ASSIGNEE, agree to carry out in good faith the intent and purpose of this assignment by executing all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to said ASSIGNEE all facts known to us relating to said inventions and the history thereof, and generally by doing everything possible which said ASSIGNEE shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said ASSIGNEE.

Hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said ASSIGNEE.

Covenant with said ASSIGNEE that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us, and that full right to convey the same as herein expressed is possessed by us.

Ming Au

Date

Date

3/22/99 Date 2/20130 Date 3/20190

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned

NAME: John Freim

, hereby

Sell, assign and transfer to Nanomaterials Research Corporation, having a place of business at 2620 Trade Center Avenue, Longmont, CO 80503, its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions which are disclosed in the application for United States Letters Patent filed on

FILE DATE	03/22/99-	3/23/99		CEN	
SERIAL NO.		09/274,0	517	een	
ENTITLED	Materials a:	nd Products Using	g Nanost	ructured Non-St	oichiometric Substances

(authorization is given to the ASSIGNEE and its counsel to fill in date and serial number) and in and to said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said inventions; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority.

Agree that said ASSIGNEE may apply for and receive Letters Patent for said inventions in its own name; and when requested, without charge to but at the expense of said ASSIGNEE, agree to carry out in good faith the intent and purpose of this assignment by executing all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to said ASSIGNEE all facts known to us relating to said inventions and the history thereof, and generally by doing everything possible which said ASSIGNEE shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said ASSIGNEE.

Hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said ASSIGNEE.

Covenant with said ASSIGNEE that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us, and that full right to convey the same as herein expressed is possessed by us.

<u>Murch 22, 1999</u> Date <u>3</u>Dd/89 Date <u>3</u>(22/99

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned

NAME: Roger Dirstine

. hereby

Sell, assign and transfer to Nanomaterials Research Corporation, having a place of business at 2620 Trade Center Avenue, Longmont, CO 80503, its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions which are disclosed in the application for United States Letters Patent filed on

FILE DATE	03/22/99-	3/23/99	CEN	
SERIAL NO.	04	1/274,517	ccņ	
ENTITLED	Materials ar	nd Products Using Na	nostructured Non-Stor	ichiometric Substances

(authorization is given to the ASSIGNEE and its counsel to fill in date and serial number) and in and to said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said inventions; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority.

Agree that said ASSIGNEE may apply for and receive Letters Patent for said inventions in its own name: and when requested, without charge to but at the expense of said ASSIGNEE, agree to carry out in good faith the intent and purpose of this assignment by executing all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to said ASSIGNEE all facts known to us relating to said inventions and the history thereof, and generally by doing everything possible which said ASSIGNEE shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said ASSIGNEE.

Hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said ASSIGNEE.

Covenant with said ASSIGNEE that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us, and that full right to convey the same as herein expressed is possessed by us.

1 reniedi

Witnessed Bv

 $\frac{3/22/199}{Date}$ $\frac{C^{3}/23/199}{Date}$ $\frac{5/26/99}{5}$

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned Tapesh Yadav, Clayton Kostlecky, Evan Franke, Bijan Miremadi, and Ming Au

Sell, assign and transfer to Nanomaterials Research Corporation, having a place of business at 2849 East Elvira Road, Tucson, AZ 85706, its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions which are disclosed in the application for United States Letters Patent filed today, May 22, 1998, Serial No.

(authorization is given for counsel to fill in date and serial number), entitled "Nanostructured Fillers and Carriers" and in and to said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said inventions; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority.

Agree that said ASSIGNEE may apply for and receive Letters Patent for said inventions in its own name; and when requested, without charge to but at the expense of said ASSIGNEE, agree to carry out in good faith the intent and purpose of this assignment by executing all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to said ASSIGNEE all facts known to us relating to said inventions and the history thereof, and generally by doing everything possible which said ASSIGNEE shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said ASSIGNEE.

Hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said ASSIGNEE.

Covenant with said ASSIGNEE that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us, and that full right to convey the same as herein expressed is possessed by us.

Dated:	5-20-98	
		Tar
Dated:	5-20-88	
		 Wit

Yadav nessed by: <u>Recycle. Cop</u>

Express Mail No. EI985601759US

Dated: 5-20-98

Dated: ____5/21/98 Dated: 5/21/98 5.21.98 Dated: Dated: 521 98 Dated: <u>5/21/98</u> Dated: <u>5/21/98</u> Dated: 5/21/98 Dated: 5-21-88 Dated: 5/21/98 5/20/98 Dated: 120/98 5 Dated: ____ Dated: 5/20/98

Dated: DS1.399131.1

Kostelecky

al b faller Witnessed by:

Witnessed by

Witnessed by:

<u>Moluj ul Kasteleck</u> Witnessed by:

/12u **Bijan Miremadi**

Witnessed by:

Ming Au

Witnessed by

Witnessed by:

Express Mail No. EI985601759US

PATENT REEL: 015163 FRAME: 0044

RECORDED: 03/29/2004