

DEPARTMENT OF COMMERCE
Patent and Trademark Office

PATENT
REEL: 015393 FRAME: 0744

CH \$40.00 232825 10898031

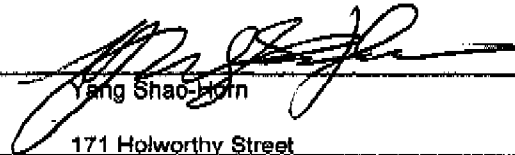
M0925.70145US00

ASSIGNMENT

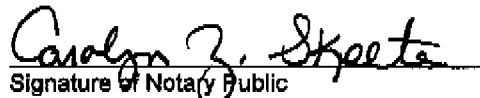
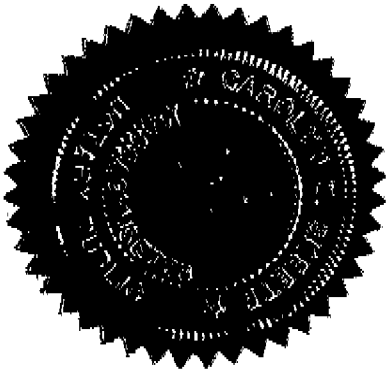
For good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned, Yang Shao-Horn, 171 Holworthy Street, Cambridge, MA 02138; John Paul Kurpiewski, 713 Alexander Court, River Vale, NJ 07675; and Quinn C. Horn, 171 Holworthy Street, Cambridge, MA 02138, hereby:

1. Sell, assign and transfer to Massachusetts Institute of Technology, a Massachusetts corporation having a place of business at 77 Massachusetts Avenue, Cambridge, MA 02139, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, our entire right, title and interest for the United States and all foreign countries, in and to any and all inventions and designs which are disclosed in the application for United States Letters Patent filed in the United States Patent and Trademark Office on July 23, 2004 under Serial No. 10/898,031 bearing Attorney Docket No. M0925.70145US00, and titled FIBER STRUCTURES INCLUDING CATALYSTS AND METHODS ASSOCIATED WITH THE SAME, and in and to said application and all non-provisional, divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent, utility models, industrial designs or similar intellectual property rights which have been or shall be filed in the United States, internationally, and in any 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 or any other jurisdiction and all foreign countries on said inventions, including the right to apply for patent rights in each foreign country and all rights to priority;
2. Agree that said Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for said inventions in its own name; and when requested, without charge to but at the expense of said Assignee, we agree to carry out in good faith the intent and purpose of this assignment, by executing all non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent, utility model and industrial design 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 me/us relating to said inventions and the history thereof, and generally by doing everything reasonably 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;
3. Hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said Assignee;
4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing patent/application identification information or correct any errors in the patent/application identification information provided above, whether discovered prior to or after recordation; and
5. 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.

- 2 -

11/08/2004
Date
Yang Shao-Horn171 Holworthy Street
Address of inventorCambridge, MA 02138
Address of inventorUnited States of America
Citizenship of inventorState/Commonwealth of MassachusettsCounty of Suffolk

on this 8 day of November 2004 before me, the undersigned notary public, personally appeared _____, proved to me through satisfactory evidence of identification, which were _____, to be the person who signed the preceding or attached document in my presence and swore or affirmed to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge and belief, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.


Signature of Notary PublicMy commission expires 9/2006

836548

- 3 -

Date

John Paul Kurpiewski

713 Alexander Court
Address of inventor

River Vale, NJ 07675
Address of inventor

United States of America
Citizenship of inventor

State/Commonwealth of _____

County of _____

on this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____, proved to me through satisfactory evidence of identification, which were _____, to be the person who signed the preceding or attached document in my presence and swore or affirmed to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge and belief, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

Seal

Signature of Notary Public

My commission expires _____

836548

PATENT
REEL: 015393 FRAME: 0747

- 4 -

Date

Quinn C. Horn

171 Holworthy Street
Address of inventor

Cambridge, MA 02138
Address of inventor

United States of America
Citizenship of inventor

State/Commonwealth of _____

County of _____

on this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____, proved to me through satisfactory evidence of identification, which were _____, to be the person who signed the preceding or attached document in my presence and swore or affirmed to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge and belief, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

Seal

Signature of Notary Public

My commission expires _____

836548

PATENT
REEL: 015393 FRAME: 0748

M0925.70145US00

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned, Yang Shao-Horn, 171 Holworthy Street, Cambridge, MA 02138; John Paul Kurpiewski, 713 Alexander Court, River Vale, NJ 07675; and Quinn C. Horn, 171 Holworthy Street, Cambridge, MA 02138, hereby:

1. Sell, assign and transfer to Massachusetts Institute of Technology, a Massachusetts corporation having a place of business at 77 Massachusetts Avenue, Cambridge, MA 02139, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, our entire right, title and interest for the United States and all foreign countries, in and to any and all inventions and designs which are disclosed in the application for United States Letters Patent filed in the United States Patent and Trademark Office on July 23, 2004 under Serial No. 10/898,031 bearing Attorney Docket No. M0925.70145US00, and titled FIBER STRUCTURES INCLUDING CATALYSTS AND METHODS ASSOCIATED WITH THE SAME, and in and to said application and all non-provisional, divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent, utility models, industrial designs or similar intellectual property rights which have been or shall be filed in the United States, internationally, and in any 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 or any other jurisdiction and all foreign countries on said inventions, including the right to apply for patent rights in each foreign country and all rights to priority;
2. Agree that said Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for said inventions in its own name; and when requested, without charge to but at the expense of said Assignee, we agree to carry out in good faith the intent and purpose of this assignment, by executing all non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent, utility model and industrial design 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 me/us relating to said inventions and the history thereof, and generally by doing everything reasonably 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;
3. Hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said Assignee;
4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing patent/application identification information or correct any errors in the patent/application identification information provided above, whether discovered prior to or after recordation; and
5. 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.

- 2 -

Date

Yang Shao-Horn

171 Holworthy Street
Address of inventor

Cambridge, MA 02138
Address of inventor

United States of America
Citizenship of inventor

State/Commonwealth of _____ :

County of _____ :

on this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____, proved to me through satisfactory evidence of identification, which were _____, to be the person who signed the preceding or attached document in my presence and swore or affirmed to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge and belief, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

Seal

Signature of Notary Public

My commission expires _____

836548

PATENT
REEL: 015393 FRAME: 0750

- 3 -

Nov 8, 2004

Date

John Paul Kurpiewski

John Paul Kurpiewski

713 Alexander Court

Address of inventor

River Vale, NJ 07675

Address of inventor

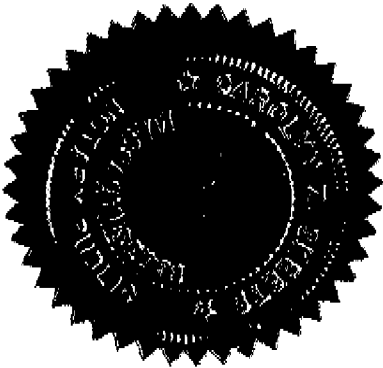
United States of America

Citizenship of inventor

State/Commonwealth of

County of Suffolk

on this 8 day of November 2004, before me, the undersigned notary public, personally appeared John Kurpiewski, proved to me through satisfactory evidence of identification, which were MIT ID, to be the person who signed the preceding or attached document in my presence and swore or affirmed to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge and belief, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

Carolyn Z. Sheets

Signature of Notary Public

My commission expires 9/2006

836548

- 4 -

Date

Quinn C. Horn

171 Holworthy Street

Address of inventor

Cambridge, MA 02138

Address of inventor

United States of America

Citizenship of inventor

State/Commonwealth of _____

County of _____

on this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____, proved to me through satisfactory evidence of identification, which were _____, to be the person who signed the preceding or attached document in my presence and swore or affirmed to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge and belief, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

Seal

Signature of Notary Public

My commission expires _____

836548

M0925.70145US00

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned, Yang Shao-Horn, 171 Holworthy Street, Cambridge, MA 02138; John Paul Kurpiewski, 713 Alexander Court, River Vale, NJ 07675; and Quinn C. Horn, 171 Holworthy Street, Cambridge, MA 02138, hereby:

1. Sell, assign and transfer to Massachusetts Institute of Technology, a Massachusetts corporation having a place of business at 77 Massachusetts Avenue, Cambridge, MA 02139, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, our entire right, title and interest for the United States and all foreign countries, in and to any and all inventions and designs which are disclosed in the application for United States Letters Patent filed in the United States Patent and Trademark Office on July 23, 2004 under Serial No. 10/898,031 bearing Attorney Docket No. M0925.70145US00, and titled FIBER STRUCTURES INCLUDING CATALYSTS AND METHODS ASSOCIATED WITH THE SAME, and in and to said application and all non-provisional, divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent, utility models, industrial designs or similar intellectual property rights which have been or shall be filed in the United States, internationally, and in any 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 or any other jurisdiction and all foreign countries on said inventions, including the right to apply for patent rights in each foreign country and all rights to priority;
2. Agree that said Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for said inventions in its own name; and when requested, without charge to but at the expense of said Assignee, we agree to carry out in good faith the intent and purpose of this assignment, by executing all non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent, utility model and industrial design 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 me/us relating to said inventions and the history thereof, and generally by doing everything reasonably 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;
3. Hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said Assignee;
4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing patent/application identification information or correct any errors in the patent/application identification information provided above, whether discovered prior to or after recordation; and
5. 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.

- 2 -

Date

Yang Shao-Horn

171 Holworthy Street

Address of inventor

Cambridge, MA 02138

Address of inventor

United States of America

Citizenship of inventor

State/Commonwealth of _____

County of _____

on this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____, proved to me through satisfactory evidence of identification, which were _____, to be the person who signed the preceding or attached document in my presence and swore or affirmed to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge and belief, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

Seal

Signature of Notary Public

My commission expires _____

836548

- 3 -

Date

John Paul Kurpiewski

713 Alexander Court

Address of inventor

River Vale, NJ 07675

Address of inventor

United States of America

Citizenship of inventor

State/Commonwealth of _____

County of _____

on this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____, proved to me through satisfactory evidence of identification, which were _____, to be the person who signed the preceding or attached document in my presence and swore or affirmed to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge and belief, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

Seal

Signature of Notary Public

My commission expires _____

836548

- 4 -

NOVEMBER 4, 2004

Date

Quinn C. Horn

Quinn C. Horn

171 Holworthy Street

Address of inventor

Cambridge, MA 02138

Address of inventor

United States of America

Citizenship of inventor

State/Commonwealth of Massachusetts

County of Middlesex

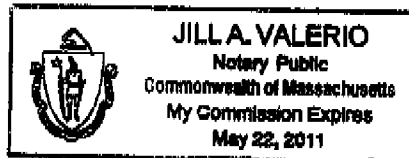
on this 4th day of Nov, 2004 before me, the undersigned notary public, personally appeared Quinn Horn, proved to me through satisfactory evidence of identification, which were Mass License, to be the person who signed the preceding or attached document in my presence and swore or affirmed to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge and belief, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

Seal

Jill A. Valerio

Signature of Notary Public

My commission expires May 22, 2011



836548

RECORDED: 11/19/2004

PATENT
REEL: 015393 FRAME: 0756