

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Alan B Cain	09/12/2011
T. Terry Ng	09/08/2011
Eric J Jumper	03/13/2009
Donald J Wittich	03/13/2009
David Cavalieri	03/13/2009

RECEIVING PARTY DATA

Name:	Innovative Technology Applications Company, LLC
Street Address:	14929 Royalbrook Drive
City:	Chesterfield
State/Country:	MISSOURI
Postal Code:	63017

Name:	University of Notre Dame du Lac
Street Address:	101 Hessert Laboratory
City:	Notre Dame
State/Country:	INDIANA
Postal Code:	46556

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12359064

CORRESPONDENCE DATA

Fax Number: (314)373-3314
 Phone: 480-247-6611
 Email: mehul_p_patel@hotmail.com
Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.

CH \$40.00 12359064

Correspondent Name: Mehul P. Patel
Address Line 1: 3881 East Leo Place
Address Line 4: Chandler, ARIZONA 85249

ATTORNEY DOCKET NUMBER: ITAC

NAME OF SUBMITTER: Mark F. Wright

Total Attachments: 7
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DOCKET NUMBER: 17074-00003

ASSIGNMENT

In consideration of One Dollar and other good and valuable consideration, of which I acknowledge receipt, I,

Alan B. Cain of 14929 Royalbrook Drive, Chesterfield, MO 63017,

hereby sell and assign to **Innovative Technologies Applications Company, LLC**, a Limited Liability Company, (hereinafter referred to as Assignee), having an address at 14929 Royalbrook Drive, Chesterfield, MO 63017, its successors and assigns my entire respective right(s), title(s) and interest(s) in and to the invention and improvements invented and originated by me/us and described U.S. Provisional Patent Application No. 61/024,353 filed January 29, 2008, and in the non-provisional application for United States Patent currently entitled:

**METHODS AND APPARATUS FOR OPTICAL PROPAGATION
IMPROVEMENT SYSTEM**

executed concurrently herewith,

filed on January 23, 2009 having Serial Number 12/359,064

and any and all applications for patent and patents therefrom in any and all countries, including all divisions, continuations, reexaminations and reissues thereof, and all rights of priority resulting from the filing of said United States application, and authorize and request any official whose duty it is to issue patents, to issue any patent on said inventions and improvements resulting therefrom to said Assignee, or its successors or assigns and agree that on request and without further consideration, but at the expense of said Assignee, I will communicate to said Assignee or its representatives or nominees any facts known to me respecting said inventions and improvements and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, reexamination and reissue applications, make all rightful oaths and generally do everything possible to aid said Assignee, its successors, assigns, and nominees to obtain and enforce proper patent protection for said invention and its improvements in all countries.

DOCKET NUMBER: 17074-00003

Signature: Alan B Cain
ALAN B. CAIN

Date: 9-12-11

Witnessed by: Meghan Gallagher
Signature

Date: 9-12-11

Meghan Gallagher
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

Alan B Cain
ALAN B. CAIN

Date: 9-12-11

STATE OF MISSOURI
COUNTY OF ST. LOUIS ss.

This 12th day of Sept 2011 before me personally came the above-named ALAN B. CAIN, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

[Signature]
(Notary Public)

PAMELA P. HACKMANN
Notary Public - Notary Seal
State of Missouri
Commissioned for St. Louis County
My Commission Expires: Feb. 18, 2014
10938146

ASSIGNMENT

In consideration of One Dollar and other good and valuable consideration, of which I acknowledge receipt, I,

T. Terry Ng of 7432 Country Meadow Court, Sylvania, OH 43560,

hereby sell and assign to **Innovative Technologies Applications Company, LLC**, a Limited Liability Company, (hereinafter referred to as Assignee), having an address at 14929 Royalbrook Drive, Chesterfield, MO 63017, its successors and assigns my entire respective right(s), title(s) and interest(s) in and to the invention and improvements invented and originated by me/us and described U.S. Provisional Patent Application No. 61/024,353 filed January 29, 2008, and in the non-provisional application for United States Patent currently entitled:

METHODS AND APPARATUS FOR OPTICAL PROPAGATION IMPROVEMENT SYSTEM

executed concurrently herewith,

filed on January 23, 2009 having Serial Number 12/359,064

and any and all applications for patent and patents therefrom in any and all countries, including all divisions, continuations, reexaminations and reissues thereof, and all rights of priority resulting from the filing of said United States application, and authorize and request any official whose duty it is to issue patents, to issue any patent on said inventions and improvements resulting therefrom to said Assignee, or its successors or assigns and agree that on request and without further consideration, but at the expense of said Assignee, I will communicate to said Assignee or its representatives or nominees any facts known to me respecting said inventions and improvements and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, reexamination and reissue applications, make all rightful oaths and generally do everything possible to aid said Assignee, its successors, assigns, and nominees to obtain and enforce proper patent protection for said invention and its improvements in all countries.

Signature: Terry Ng Date: 9/8/2011
T. TERRY NG

Witnessed by: Phillip R. White Date: 9/8/2011
Signature

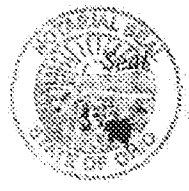
Phillip R. White
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

Terry Ng Date: 9/10/2011
T. TERRY NG

STATE OF _____ ss.
COUNTY OF _____

This 10th day of September 2011 before me personally came the above-named T. TERRY NG, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.



LISA M. HARGISON
Notary Public, State of Ohio
My Commission Expires 08-15-2016

Lisa M. Hargison
(Notary Public)

ASSIGNMENT

WHEREAS, **DR. ERIC J. JUMPER**, whose office address appears below (hereinafter referred to as ASSIGNOR), has invented certain new and useful invention entitled: "METHODS AND APPARATUS FOR OPTICAL PROPAGATION IMPROVEMENT SYSTEM", Docket Number UND-2008-049 (hereinafter referred to as THE INVENTION) for which a United States Utility Patent Application was filed January 23, 2009, and was assigned Patent Application S/N 12/359,064;

WHEREAS, **THE UNIVERSITY OF NOTRE DAME DU LAC**, whose post office address is **511 Main Building, Notre Dame, Indiana**, (hereinafter referred to as ASSIGNEE), is desirous of acquiring the entire right, title and interest in and to the same in the United States and throughout the world;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I, ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title and interest in and to said invention and application throughout the United States of America, including any and all United States Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application; and the entire right, title and interest in and to said invention throughout the world, including the right to apply for patents and inventor certificates in respect thereof and to claim priority pursuant to rights accorded ASSIGNOR under the terms of the Paris International Convention and all other available international conventions and treaties; and the entire right, title and interest in and to any and all patents, patents of addition, utility models, patents of importation, revalidation patents and inventor certificates which may be granted throughout the world in respect of said invention.

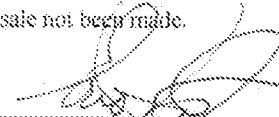
ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) or inventor certificate(s) in the United States and in foreign countries for said invention, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said invention, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE'S expense, to identify and communicate to ASSIGNEE at ASSIGNEE'S request documents and information concerning the invention that are within ASSIGNOR'S possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent encompassed within the terms of this instrument.

ASSIGNOR also agrees, without further consideration and at ASSIGNEE'S expense, to transfer the right to sue for past infringement to ASSIGNEE and at ASSIGNEE'S request documents and information concerning the enforcement of the right to sue within ASSIGNOR'S possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the right to sue of any patent encompassed within the terms of this instrument.

ASSIGNOR'S obligations under this instrument shall extend to ASSIGNOR'S heirs, executors, administrators and other legal representatives.

ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent referred to above to ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE'S sole use and behalf; and for the use and behalf of ASSIGNEE'S legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.

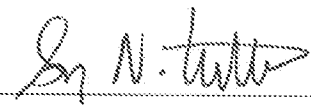
Dr. Eric J. Jumper
110 Hessert Laboratory
University of Notre Dame
Notre Dame, IN 46556


.....
Signature

13 MAR 2009
.....
Date

(Notarization preferred but not required)

Before me personally appeared said Eric J. Jumper and acknowledges this instrument to be his (her) free act and deed this 13th day of March, 2009.


.....
Notary Public

ASSIGNMENT

WHEREAS, DONALD J. WITTICH, whose office address appears below (hereinafter referred to as ASSIGNOR), has invented certain new and useful invention entitled: "METHODS AND APPARATUS FOR OPTICAL PROPAGATION IMPROVEMENT SYSTEM", Docket Number UND-2008-049 (hereinafter referred to as The INVENTION) for which a United States Utility Patent Application was filed January 23, 2009, and was assigned Patent Application S/N 12/359,064;

WHEREAS, THE UNIVERSITY OF NOTRE DAME DU LAC, whose post office address is 511 Main Building, Notre Dame, Indiana, (hereinafter referred to as ASSIGNEE), is desirous of acquiring the entire right, title and interest in and to the same in the United States and throughout the world;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I, ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title and interest in and to said invention and application throughout the United States of America, including any and all United States Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application; and the entire right, title and interest in and to said invention throughout the world, including the right to apply for patents and inventor certificates in respect thereof and to claim priority pursuant to rights accorded ASSIGNOR under the terms of the Paris International Convention and all other available international conventions and treaties; and the entire right, title and interest in and to any and all patents, patents of addition, utility models, patents of importation, revalidation patents and inventor certificates which may be granted throughout the world in respect of said invention.

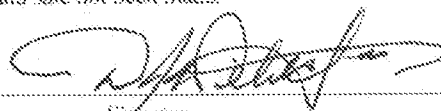
ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) or inventor certificate(s) in the United States and in foreign countries for said invention, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said invention, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE'S expense, to identify and communicate to ASSIGNEE at ASSIGNEE'S request documents and information concerning the invention that are within ASSIGNOR'S possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent encompassed within the terms of this instrument.

ASSIGNOR also agrees, without further consideration and at ASSIGNEE'S expense, to transfer the right to sue for past infringement to ASSIGNEE and at ASSIGNEE'S request documents and information concerning the enforcement of the right to sue within ASSIGNOR'S possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the right to sue of any patent encompassed within the terms of this instrument.

ASSIGNOR'S obligations under this instrument shall extend to ASSIGNOR'S heirs, executors, administrators and other legal representatives.

ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent referred to above to ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE'S sole use and behalf; and for the use and behalf of ASSIGNEE'S legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.

Donald J. Wittich
118 Hessert Laboratory
University of Notre Dame
Notre Dame, IN 46556

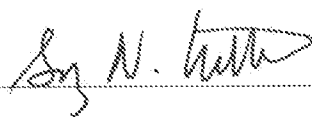

Signature

3/13/09
Date



Notarization preferred but not required.

Before me personally appeared said Donald J. Wittich and acknowledges this instrument to be his (her) free act and deed this 13th day of March, 2009.


Notary Public

ASSIGNMENT

WHEREAS, DAVID CAVALIERI, whose office address appears below (hereinafter referred to as ASSIGNOR), has invented certain new and useful invention entitled: "METHODS AND APPARATUS FOR OPTICAL PROPAGATION IMPROVEMENT SYSTEM". Docket Number UND-2008-049 (hereinafter referred to as THE INVENTION) for which a United States Utility Patent Application was filed January 23, 2009, and was assigned Patent Application S/N 12/359,064;

WHEREAS, THE UNIVERSITY OF NOTRE DAME DU LAC, whose post office address is 511 Main Building, Notre Dame, Indiana, (hereinafter referred to as ASSIGNEE), is desirous of acquiring the entire right, title and interest in and to the same in the United States and throughout the world;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I, ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title and interest in and to said invention and application throughout the United States of America, including any and all United States Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application; and the entire right, title and interest in and to said invention throughout the world, including the right to apply for patents and inventor certificates in respect thereof and to claim priority pursuant to rights accorded ASSIGNOR under the terms of the Paris International Convention and all other available international conventions and treaties; and the entire right, title and interest in and to any and all patents, patents of addition, utility models, patents of importation, revalidation patents and inventor certificates which may be granted throughout the world in respect of said invention.

ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) or inventor certificate(s) in the United States and in foreign countries for said invention, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said invention, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE's expense, to identify and communicate to ASSIGNEE at ASSIGNEE's request documents and information concerning the invention that are within ASSIGNOR's possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent encompassed within the terms of this instrument.

ASSIGNOR also agrees, without further consideration and at ASSIGNEE's expense, to transfer the right to sue for past infringement to ASSIGNEE and at ASSIGNEE's request documents and information concerning the enforcement of the right to sue within ASSIGNOR's possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the right to sue of any patent encompassed within the terms of this instrument.

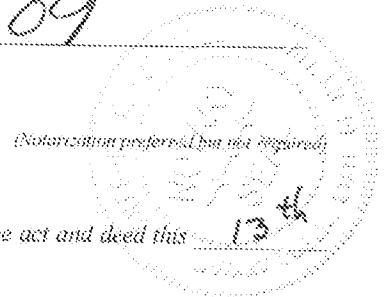
ASSIGNOR's obligations under this instrument shall extend to ASSIGNOR's heirs, executors, administrators and other legal representatives.

ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent referred to above to ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE's sole use and behalf; and for the use and behalf of ASSIGNEE's legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.

David Cavalieri
122 Hessert Laboratory
University of Notre Dame
Notre Dame, IN 46556

David Cavalieri
Signature

13 MAR 09
Date



Before me personally appeared said David Cavalieri and acknowledges this instrument to be his (her) free act and deed this 13th day of March, 2009.

Jim N. Lister
Notary Public

PATENT