

11-15-2004

PATENT

REC



IEET

102881336

TO: Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

## Submission Type

- ☒ New  
☐ Resubmission (Non-Recordation)

Document ID#: 

- ☐ Correction of PTO Error

Reel #:  Frame #: 

- ☐ Corrective Document

Reel #:  Frame #: 

## Conveyance Type

- ☒ Assignment ☐ Security Agreement  
☐ License ☐ Change of Name  
☐ Merger ☐ Other

U.S. Government

(For use ONLY by U.S. Government Agencies)

- ☐ Departmental File ☐ Secret File

## Conveying Party(ies)

- ☐ Mark if additional names of conveying parties attached

Name  Donald K. SmithExecution Date  
Month Day Year 08/21/1997Name  Xing Chen 08/22/1997Name  William M. Holber 08/25/1997Name  Eric Georgelis 08/22/1997Name  / /

## Receiving Party

- ☐ Mark if additional names of receiving parties attached

Name (line 1)  Applied Science and Technology, Inc.Name (line 2) Address (line 1)  90 Industrial WayAddress (line 2) Address (line 3)  Wilmington MA 01887

City

State/Country

Zip Code

- ☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment)

## Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name Address (line 1) Address (line 2) Address (line 3) Address (line 4) 

FOR OFFICE USE ONLY

11/12/2004 METACHE 00000211 503081 6664497

01 FC:0021

40.00 BA

Mail documents to be recorded with required cover sheet(s) information to:

Mail Stop Assignment Recordation Services, Director of the US Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450

PATENT

REEL: 015962 FRAME: 0988

## Correspondent Name and Address

Area Code and Telephone Number (617) 526-9600

Name Patent Administrator

Address (line 1) Proskauer Rose LLP

Address (line 2) One International Place

Address (line 3) 14<sup>th</sup> Floor

Address (line 4) Boston, MA 02110-2600

Pages Enter the total number of pages of the attached conveyance document including any attachments.

3

## Application Number(s) or Patent Number(s)

☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

## Patent Application Number(s)


## Patent Number(s)

6,664,497		

## Patent Cooperation Treaty (PCT)

Enter PCT application number  
only if a U.S. Application Number  
has not been assigned.

PCT		PCT		PCT	
PCT		PCT		PCT	

## Number of Properties

Enter the total number of properties involved.

# 1

## Fee Amount

Fee Amount for Properties Listed (37 CFR 3.41):

\$ 40.00

Method of Payment: Enclosed ☐Deposit Account ☒

Deposit Account

(Enter for payment by deposit account or if additional fees can be charged to the account)

Deposit Account Number # 50-3081

Authorization to charge additional fees:

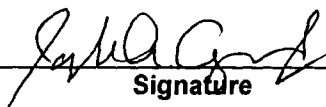
Yes ☒No ☐

## Statement and Signature

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.*

Joseph A. Capraro, Jr.

Name of Person Signing



Signature

11/8/04

Date

Mail documents to be recorded with required cover sheet(s) information to:

Mail Stop Assignment Recordation Services, Director of the US Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450

6738/49548-032 BNLBI/7439v1

PATENT

REEL: 015962 FRAME: 0989

ASSIGNMENT

WHEREAS, We, Donald K. Smith, Xing Chen, William M. Holber and Eric Georgelis have invented one or more improvements in:

**TOROIDAL LOW-FIELD REACTIVE GAS SOURCE**

described in an application (or provisional application) for Letters Patent of the United States:

☐ identified by Attorney Docket No. , and/or executed by us of even date herewith and about to be filed in the United States Patent Office;

☒ Serial No. 08/883,281 filed in the United States Patent Office on June 26, 1997; and

WHEREAS, Applied Science and Technology, Inc. (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the ~~Commonwealth of Massachusetts~~ <sup>state of Delaware</sup> <sup>(SAC 9/6/01)</sup>, and having a usual place of business at 35 Cabot Road, Woburn, Massachusetts 01801 desires to acquire an interest therein, in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, our entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the inventions described in said application, together with our entire right, title and interest in and to said application and such Letters Patent as may issue thereon or claim priority under international convention; said inventions, applications and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all of our rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of our entire right, title and interest in and to said inventions, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all Letters Patent to ASSIGNEE for its own name as assignee of our entire right, title and interest therein.

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including: the execution of applications for patents in foreign countries; the execution of substitution, reissue, divisional or continuation applications; and preliminary or other statements or the giving of testimony in any interference or other proceeding in which said inventions or any application or patent directed thereto may be involved; and we further hereby authorize ASSIGNEE or its attorneys or agents to insert the correct serial number and filing date into this assignment, if none is indicated on that date of our execution of this assignment;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor:

Donald K. Smith  
Donald K. Smith

Commonwealth of Massachusetts )  
County of Middlesex ) ss

Subscribed and sworn to before me, by the above-named Donald K. Smith this 21<sup>st</sup> day of August, 1997.

Lisa Ann Caloggero  
Notary Public  
My Commission Expires: May 22, 1998  
Notary Public

Inventor:

Xing Chen  
Xing Chen

Commonwealth of Massachusetts )  
County of Middlesex ) ss

Subscribed and sworn to before me, by the above-named Xing Chen this 22 day of August, 1997.

Lisa Ann Caloggero  
Notary Public  
My Commission Expires: \_\_\_\_\_

Lisa Ann Caloggero  
Notary Public  
My Commission Expires May 22, 1998

Inventor:

William M. Holber  
William M. Holber

Commonwealth of Massachusetts )  
County of Middlesex ) ss

Subscribed and sworn to before me, by the above-named William M. Holber this 25<sup>th</sup> day of  
August, 1997.

Lisa Ann Caloggero  
Notary Public

My Commission Expires: Lisa Ann Caloggero  
Notary Public

My Commission Expires May 22, 1998

Inventor:

Eric Georgelis  
Eric Georgelis

Commonwealth of Massachusetts )  
County of Middlesex ) ss

Subscribed and sworn to before me, by the above-named Eric Georgelis this 22nd day of  
August, 1997.

Lisa Ann Caloggero  
Notary Public

My Commission Expires:

My Commission Expires May 22, 1998

281KR473/19.397543