

**PATENT ASSIGNMENT**

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT										
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT										
<b>CONVEYING PARTY DATA</b>											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Donald K. Smith</td> <td>08/21/1997</td> </tr> <tr> <td>Xing Chen</td> <td>08/22/1997</td> </tr> <tr> <td>William M. Holber</td> <td>08/25/1997</td> </tr> <tr> <td>Eric Georgelis</td> <td>08/22/1997</td> </tr> </tbody> </table>		Name	Execution Date	Donald K. Smith	08/21/1997	Xing Chen	08/22/1997	William M. Holber	08/25/1997	Eric Georgelis	08/22/1997
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<b>RECEIVING PARTY DATA</b>											
<b>Name:</b>	Applied Science and Technology, Inc.										
<b>Street Address:</b>	35 Cabot Road										
<b>City:</b>	Woburn										
<b>State/Country:</b>	MASSACHUSETTS										
<b>Postal Code:</b>	01801										
<b>PROPERTY NUMBERS Total: 1</b>											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>11636891</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	11636891						
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Application Number:	11636891										
<b>CORRESPONDENCE DATA</b>											
<b>Fax Number:</b>	(617)526-9899										
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
<b>Phone:</b>	617.526.9600										
<b>Email:</b>	omannion@proskauer.com										
<b>Correspondent Name:</b>	Proskauer Rose LLP										
<b>Address Line 1:</b>	One International Place										
<b>Address Line 4:</b>	Boston, MASSACHUSETTS 02110										
<b>ATTORNEY DOCKET NUMBER:</b>	ASX-015CP2C2										
<b>NAME OF SUBMITTER:</b>	Erik Saarmaa										
Total Attachments: 3 source=INVENTORS to ASTEX#page1.tif											

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COPY

Atty. Docket No. ASX-015  
(473/19)

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 (inc 9/4/01)</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  
Commission Expires May 22, 1998

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

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