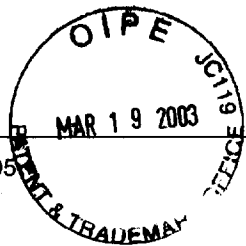


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03-26-2003

Substitute PTO-1595 (Rev. 10/02)



U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office

102400452

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

<p>1. Name of conveying party(ies)</p> <p>Robert L. Parkhill Michael S. Donley Andrew J. Vreugdenhil Vsevolod N. Balbyshev</p> <p style="text-align: right; font-size: 2em;">3-19-03</p>	<p>2. Name and address of receiving party(ies)</p> <p>Name: <u>The United States of America as represented by the Secretary of the Air Force</u></p> <p>Internal Address: <u>AFMCLO/JAZ</u> <u>Bldg 11, Room 100</u></p> <p>Street Address: <u>2240 B Street</u></p> <p>City: <u>Wright-Patterson AFB</u> State: <u>OH</u> Zip: <u>45433</u></p> <p>Additional name(s) &amp; address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>3. Nature of conveyance:</p> <p><input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger</p> <p><input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name</p> <p><input type="checkbox"/> Other _____</p> <p>Execution Date: <u>1/14/03 and 1/24/03</u></p>	


<p>4. Application number(s) or patent number(s):</p> <p>If this document is being filed together with a new application, the execution date of the application is: _____</p> <p>A. Patent Application No.(s)</p> <p style="text-align: center;"><u>10/367,496</u></p> <p>Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>B. Patent No.(s)</p> <p>6. Total number of applications and patents involved: <input type="text" value="1"/></p> <p>7. Total fee (37 CFR 3.41) .....\$ <u>40.00</u></p> <p><input type="checkbox"/> Enclosed</p> <p><input checked="" type="checkbox"/> Authorized to be charged to deposit account</p> <p>8. Deposit account number:</p> <p style="text-align: center;"><u>AF 01-0465</u></p> <p>(Attach duplicate copy of this page if paying by deposit account)</p>
<p>5. Name and address of party to whom correspondence should be addressed:</p> <p>Name: <u>Thomas L. Kundert</u></p> <p>Internal Address: <u>AFMCLO/JAZ</u> <u>Bldg 11, Room 100</u></p> <p>Street Address: <u>2240 B Street</u></p> <p>City: <u>Wright-Patterson AFB</u> State: <u>OH</u> Zip: <u>45433</u></p>	

DO NOT USE THIS SPACE

9. 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.*

THOMAS L. KUNDERT  
Name of Person Signing

  
Signature

3/13/03  
Date

Total number of pages including cover sheet, attachments, and documents:

03/26/2003 TBIAZ1 00000038 010465 10367496  
01 FC:8021 40.00 CH

ASSIGNMENT

WHEREAS We, Robert L. Parkhill and Michael S. Donley, while employed by the Government of the United States, together with Andrew J. Vreugdenhil, an employee of University of Dayton Research Institute, and Vsevolod N. Balbyshev, an employee of Universal Technology Corporation, made an invention entitled **SELF-ASSEMBLED NANO-PHASE PARTICLE SURFACE TREATMENT FOR CORROSION PROTECTION** and described in application for Letters Patent of the United States executed by us on the 14<sup>th</sup> day of January, 2003 and the 14<sup>th</sup> day of Jan., 2003, respectively;

WHEREAS, the conditions under which said invention was made are such as to entitle the Government under paragraph 1(a) of Executive Order 10096, to the entire right, title and interest therein, including foreign rights; and

NOW, THEREFORE, to all whom it may concern, be it known that for and in consideration of the premises and other valuable considerations, We, Robert L. Parkhill and Michael S. Donley, have sold, assigned, and transferred, and by these presents do sell, assign, and transfer unto the Government of the United States, as represented by the Secretary of the Air Force, our entire right, title and interest throughout the world in and to the aforesaid joint invention described in the aforesaid application for Letters Patent of the United States, and any and all applications for patent and patents in any and all countries foreign to the United States, and all Letters Patent issuing thereon and any continuations, continuations-in-part, divisions, and reissues or extensions thereof; and all priority resulting from the filing of the aforesaid application for patent in the United States; We hereby authorize and request any official whose duty it is to issue patents to issue any patent thereon to the United States of America, as represented by the Secretary of the Air Force, and his successors, as assignee of our entire right, title and interest in and to the same, for the sole use for the full term or terms for which said patents and any continuations, continuations-in-part, divisions and reissues or extensions thereof are, or may be, granted as fully and entirely as the same would have been held by us had this Assignment not been made; and We hereby agree to execute any and all applications for Letters Patent, and to furnish all data and documents and to execute any papers which may be necessary or convenient for the preparation, filing, or prosecution of such applications, except it is understood that We shall not be subject to any out-of-pocket expense relative to such action.

  
Robert L. Parkhill

SUBSCRIBED AND ACKNOWLEDGED before me this 14<sup>th</sup> day of JAN, 2003, at STILLWATER, in the County of PAYNE and State of OKLAHOMA.

  
Notary Public

(SEAL)

Expires: 11-2-2003  
Comm: 99016334

Michael S. Donley  
Michael S. Donley

SUBSCRIBED AND ACKNOWLEDGED before me this 17<sup>th</sup> day of January, 2003, at  
Wright-Patterson AFB, in the County of Montgomery and State of Ohio.

[Signature]  
Notary Public

(SEAL)

ASSIGNMENT

Application Title: SELF-ASSEMBLED NANO-PHASE PARTICLE SURFACE TREATMENT FOR CORROSION PROTECTION

Inventor(s): Andrew J. Vreugdenhil

Date Inventor(s) Signed: \_\_\_\_\_

Declaration: 24<sup>th</sup> January, 2003

Contractor's Name: UDRI

Contract Number: F33615-96-D-5052

Contractor's Docket No.: \_\_\_\_\_

Air Force Docket No.: AFD543

The undersigned Inventor in recognition of his obligation as an employee of the Contractor to assign inventions to the Contractor, and pursuant to the obligations of the Contractor to the Government of the United States under the above contract, hereby assign to the United States of America, as represented by the Secretary of the Air Force, his entire right, title, and interest throughout the world in and to each invention disclosed and claimed in the above U.S. patent application, made jointly with Robert L. Parkhill and Michael S. Donley, employees of the United States Government, and any substitution, division, continuation-in-part, or continuation of such patent application, subject to the reservation to the Contractor of any license to which the Contractor may be entitled under the above contract.

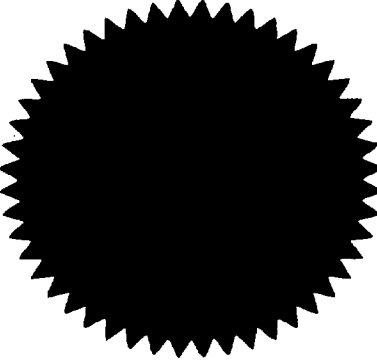
The Inventor agrees to assist the Contractor and the Government, upon request, by furnishing any available information and documents, performing all acts, and doing all things which may be reasonably necessary to prepare, file and prosecute such applications and make this assignment effective.

The Contractor joins in and agrees to this assignment and, except for the reservation of any license under the above contract, relinquishes and assigns to the United States of America as represented by the Secretary of the Air Force its entire right, title, and interest throughout the world in and to such inventions, and further agrees to furnish to the Government, upon request, any available information and documents necessary for the preparation, filing, and prosecution of such applications, for patent.

Andrew J. Vreugdenhil  
Andrew J. Vreugdenhil

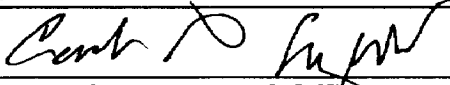
SUBSCRIBED AND ACKNOWLEDGED before me this 24<sup>th</sup> day of January, 2003, at Peterborough, in the County of Peterborough and State/Province of Ontario, Canada.

[Signature]  
Notary Public



## FOR THE CONTRACTOR

Contractor UDRI

By   
(Signature of Officer or Agent)

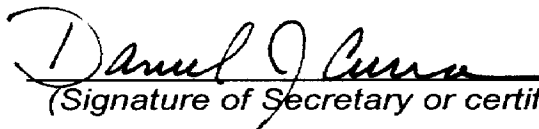
Printed Name Gordon A. Sargent, Ph.D.

Date \_\_\_\_\_

Title Vice President for Graduate Studies  
& Research and Dean of the Graduate  
School

Business Address 300 College Park  
Dayton OH 45469-0102

I, Daniel J. Curran, Ph.D., certify that I am the  
Secretary of the corporation named as Contractor herein; that  
Gordon A. Sargent who signed this assignment on  
behalf of the Contractor was the V.P. Graduate Studies & Res. of said corporation;  
that said assignment was duly signed for and on behalf of said corporation by authority of its  
governing body, and is within the scope of its corporate powers.

  
(Signature of Secretary or certifying official)

ASSIGNMENT

Application Title: SELF-ASSEMBLED NANO-PHASE PARTICLE SURFACE TREATMENT FOR CORROSION PROTECTION

Inventor(s): Vsevolod N. Balbyshev

Date Inventor(s) Signed Declaration: January 14, 2003

Contractor's Name: Universal Technology Corporation

Contract Number: F33615-97-D-5009

Contractor's Docket No.: \_\_\_\_\_

Air Force Docket No.: AFD543

The undersigned Inventor in recognition of his obligation as an employee of the Contractor to assign inventions to the Contractor, and pursuant to the obligations of the Contractor to the Government of the United States under the above contract, hereby assign to the United States of America, as represented by the Secretary of the Air Force, his entire right, title, and interest throughout the world in and to each invention disclosed and claimed in the above U.S. patent application, made jointly with Robert L. Parkhill and Michael S. Donley, employees of the United States Government, and any substitution, division, continuation-in-part, or continuation of such patent application, subject to the reservation to the Contractor of any license to which the Contractor may be entitled under the above contract.

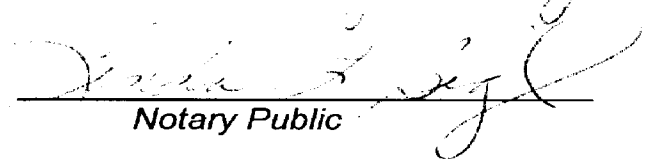
The Inventor agrees to assist the Contractor and the Government, upon request, by furnishing any available information and documents, performing all acts, and doing all things which may be reasonably necessary to prepare, file and prosecute such applications and make this assignment effective.

The Contractor joins in and agrees to this assignment and, except for the reservation of any license under the above contract, relinquishes and assigns to the United States of America as represented by the Secretary of the Air Force its entire right, title, and interest throughout the world in and to such inventions, and further agrees to furnish to the Government, upon request, any available information and documents necessary for the preparation, filing, and prosecution of such applications, for patent.

  
\_\_\_\_\_  
Vsevolod N. Balbyshev

SUBSCRIBED AND ACKNOWLEDGED before me this 14<sup>th</sup> day of January 2003, at Wright-Patterson AFB, in the County of Montgomery and State of Ohio.

(seal)

  
\_\_\_\_\_  
Notary Public

LINDA L. BIGL, Notary Public  
In and For the State of Ohio  
My Commission Expires May 26, 2003

FOR THE CONTRACTOR

Contractor Universal Technology Corporation

By *Patrick J. Adamson*  
(Signature of Officer or Agent)

Printed Name Patrick J. Adamson

Date February 28, 2003

Title Executive Vice President

Business Address 1270 North Fairfield Road  
Dayton OH 45432-2600

I, Lyle W. Lockwood, certify that I am the  
SECRETARY of the corporation named as Contractor herein; that  
PATRICK J. ADAMSON who signed this assignment on  
behalf of the Contractor was the EXECUTIVE VICE PRESIDENT of said corporation;  
that said assignment was duly signed for and on behalf of said corporation by authority of its  
governing body, and is within the scope of its corporate powers.

*Lyle W. Lockwood*  
(Signature of Secretary or certifying official)