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Second Party	Execution Date Month Day
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Address (line 1) 1000 Independence Avenue, S.W.	(Designation must be separate document fr
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FORM PTO-1619B Expires 06/30/99 OMB 0651-0027	Page 2	U.S. Department of Commerce Patent and Trademark Office PATENT	
Correspondent Name and Address	Area Code and Telephone Number	202-586-2810	
Name Betty A. Winchester			
Address (line 1) MS 6F-067 (FORSTL), GC-62			
Address (line 2) United States Department of Energy	у		
Address (line 3) 1000 Independence Avenue, S. W.			
Address (line 4) Washington, D. C. 20585-0162			
Pages Enter the total number of paging including any attachments.	ges of the attached conveyance docume	ent # 2	
Application Number(s) or Patent Nur		dditional numbers attached	
Fee Amount Fee Amount	Patent	Number(s)	
	ditional fees can be charged to the account.) Deposit Account Number: # [01-2752 Yes 🖌 No	
Statement and Signature			
To the best of my knowledge and be attached copy is a true copy of the c indicated herein. Betty A. Winchester Name of Person Signing	elief, the foregoing information is true an original document. Charges to/deposit a Signature	nd correct and any account are authorized, as MAR - 2005 Date	

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PATENT REEL: 013820 FRAME: 0978

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FORM PTO-1 Expires 06/30/99 OMB 0651-0027		DATION FORM COVER SH CONTINUATION PATENTS ONLY	U.S. Dep	artment of Commerce nd Trademark Office PATENT		
Conveying Party(ies)						
, i i i i i i i i i i i i i i i i i i i	Conveying Parties		j	Execution Date Month Day Year		
Name (line 1)	RAPTIS, Apostolos C.			03/13/1998		
Name (line 2)				Execution Date		
Name (line 1)	KUPPERMAN, David S.			<u>Month Day Year</u> 03/02/1998		
Name (line 2)				Execution Date Month Day Year		
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Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).						
	ent Application Number(s)		Patent Number(s)		
08/838955						
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L. <u></u>			<u> </u>			

PATENT REEL: 013820 FRAME: 0979

U.S. Department of Energy

08/838,955

PATENT ASSIGNMENT FORM

WHEREAS, we, Shuh-Haw Sheen, Hual-Te Chien, Apostolos C. Raptis and

 David S. Kupperman.
 , citizens of the United States residing and the Republic of China

 in __Naperville_______, County of __Dupage_______, State of __Illinois_____;

 in __Naperville_______, County of __Dupage_______, State of __Illinois_____;

 in __Downers Grove_______, County of __Dupage_______, State of __Illinois_____;

 in __Oak Park_______, County of __Cook______, State of __Illinois_____;

 have invented certain new and useful improvements in __Method and Apparatus for Sizing and

 Separating Warp Yarns______, for which a patent application identified as U.S. Serial No.

 __08/838,955_ was filed on _April 23, 1997_ and executed by us on the __24th___ day of __

<u>March</u>; 19<u>97</u>; on the <u>26th</u> day of <u>March</u>; 19<u>97</u>; on the <u>25th</u> day of <u>March</u>, 19<u>97</u>; on the <u>24th</u> day of <u>March</u>, 19<u>97</u>; and

WHEREAS, the Government of the United States desires to acquire the entire right, title, and interest in and to said invention and in and to any Letters Patent wherever they may be issued thereon;

NOW, THEREFORE, to all whom it may concern, be it known that for and in consideration of the sum of One Dollar to us in hand paid by the Government of the United States, and for other good and valuable consideration, the receipt of which is hereby acknowledged, we by these presents do sell, assign, and transfer unto the said Government of the United States, as represented by the united States Department of Energy, and/or its assigns, the entire right, title, and interest in and to the said invention and in and to any and all Letters Patent wherever they may be granted thereon as well as reissues and extensions of said Letters Patent are or may be granted, reissued, or extended, as fully and entirely as the same would have been held or enjoyed by us had this assignment not been made.

We agree to make, execute, and deliver unto the Government of the United States, or to the United States Department of Energy, any and all papers, documents, affidavits, renewal, divisional and reissue applications, statements, or other instruments in such usual or other forms, terms and contents as may be required by the United States Department of Energy, or its duly authorized representative, in or incident to the prosecution or conduct of any and all applications, before as well as after the issuance of any Letters thereon, or in the adjustment or settlement of any interferences or other actions or proceedings that said applications may encounter or in which they may become involved and we agree that we will aid the Government of the United States in every way in protecting the inventions as may be requested by the United States Department of Energy or its assigns, except that any expenses arising through extending such assistance will be paid for by proper arrangement with the Government of the United States.

PATENT REEL: 013820 FRAME: 0980

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INVENTORS: Shul- Haw Steen (SEAL) Date<u>3/13</u>/98 Stand the floor (SEAL) Date <u>Manda 1</u>9 a tite

WITNESS: Jally 4 proce

The hassould

Alis (SEAL) March 13. Date

Dand Kupperman (SEAL) Date March 2, 1998

Approved and consented to this 20th day of March, 1998.

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ATTEST:

WITNESS:

samuela hola (SEAL) Board of Trentes

James R. ĽaFevers

James R. LaFevers Deputy to Vice President for Argonne National Laboratory

Accepted for the Benefit of the Government of the United States.

UNITED STATES DEPARTMENT OF ENERGY

Counsel for Patents iera l

Asstistant General Counsel for Patents PATENT REEL: 013820 FRAME: 0981

WITNESS:

de Rall

RECORDED: 03/07/2003