503596442 12/04/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3643072

		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT	
CONVEYING PARTY D	ΔΑΤΑ			
		Name	Execution Date	
JOSEPH SMITH			11/25/2013	
ANDREW GALPIN			11/26/2013	
CHRISTOPHER WARGO			11/15/2013	
RECEIVING PARTY D	ΑΤΑ			
Name:	ENTE	GRIS, INC.		
Street Address:	129 C	ONCORD ROAD		
City:	BILLEI	RICA		
State/Country:	MASS	ACHUSETTS		
Postal Code:	01821			
Property Type				
Application Number:		14831280		
	DATA	14831280		
CORRESPONDENCE	DATA	14831280		
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Westford MN 01886

ASSIGNMENT

WHEREAS, we, Joseph Smith, of 30 Penni Lane, N. Andover, Massachusetts 01845, Andrew Galpin, of 14 Shady Hill Road, Nashua, New Hampsire-03063, and Christopher Wargo, of 45 Brook Street, Wellesley, Massachusetts 02482, ("Assignors"), have invented certain new and useful improvements in CHEMICAL MECHANICAL PLANARIZATION PAD CONDITIONER, for which a provisional application has been made, said application which may be identified in the United States Patent Office by Application No. 14/004,152, filed September 9, 2013.

WHEREAS, Entegris, Inc. ("Assignce"), a business entity organized and existing under the laws of the State of Delaware and having its principal offices at 129 Concord Road, Billerica, Massachusetts 01821, is desirous of acquiring the entire right, title and interest in and to said invention, said provisional application and in, to and under any and all Letters Patent to be obtained therefor,

NOW, THEREFORE, for and in consideration of good and valuable consideration paid by Assignee to Assignors, the receipt and sufficiency of which is hereby acknowledged by us, we have sold, assigned and transferred, and by these presents do hereby sell, assign and transfer unto the said Assignee, its successors and assigns, our entire right, title and interest in and to said invention, said provisional application, all applications claiming priority to said provisional application including all divisions, continuations or renewals thereof, and the Letters Patent, both foreign and domestic, that may or shall issue, therefrom including all reissues or extensions of such patents including all of our rights under the International Convention and further including the right to sue, counterclaim and recover for past, present and future infringement of the rights assigned or to be assigned, as fully and entirely as the same would have been held by the Assignors if this assignment had not been made, and we do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to the above mentioned Assignce in accordance herewith.

We hereby authorize the above mentioned Assignee, its successors and assigns, or anyone it may properly designate, to insert in this instrument the filing date and application number of said provisional application when ascertained.

We further authorize said Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of said United States application and/or otherwise take advantage of the provisions of the International Convention.

Upon said consideration we do hereby covenant and agree with the said Assignce, its successors and assigns, that we will not execute in writing or do any act whatsoever conflicting with these presents, and that we or our executors or administrators will at any time upon request, without further or additional consideration, but at the expense of the said Assignce, its successors and assigns, execute such additional writings and do such additional acts as said Assignee, its successors and assigns, may deem necessary or desirable to perfect the Assignee's enjoyment of

this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights occurring as a result of such applications or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

Date:

Dav/Month/Year

Joséni

Subscribed to and sworn to before me this 254 day of 2642, 642, 20/3.



Subscribed to and sworn to before me this $\frac{26^{4}}{2013}$ day of <u>November</u>, 2013.

Nótary Public

Maureen Griffin-Stone Notary Public My Commission Expires April 1, 2016

Andrew Galpin

PATENT REEL: 037208 FRAME: 0255 Date:

Day/Month/Year

Christopher Wargo

Subscribed to and sworn to before me this _____ day of _____, 20___.

Notary Public

Notary Seal

PATENT REEL: 037208 FRAME: 0256

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ASSIGNMENT

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WHEREAS, we, Joseph Smith, of 30 Penni Lane, N. Andover, Massachusetts 01845, Andrew Galpin, of 14 Shady Hill Road, Nashua, New Hampsire 03063, and Christopher Wargo, of 45 Brook Street, Wellesley, Massachusetts 02482, ("Assignors"), have invented certain new and useful improvements in CHEMICAL MECHANICAL PLANARIZATION PAD CONDITIONER, for which a provisional application has been made, said application which may be identified in the United States Patent Office by Application No. 14/004,152, filed September 9, 2013.

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NOW, THEREFORE, for and in consideration of good and valuable consideration paid by Assignee to Assignors, the receipt and sufficiency of which is hereby acknowledged by us, we have sold, assigned and transferred, and by these presents do hereby sell, assign and transfer unto the said Assignee, its successors and assigns, our entire right, title and interest in and to said invention, said provisional application, all applications claiming priority to said provisional application including all divisions, continuations or renewals thereof, and the Letters Patent, both foreign and domestic, that may or shall issue, therefrom including all reissues or extensions of such patents including all of our rights under the International Convention and further including the right to sue, counterclaim and recover for past, present and future infringement of the rights assigned or to be assigned, as fully and entirely as the same would have been held by the Assignors if this assignment had not been made, and we do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to the above mentioned Assignee in accordance herewith.

We hereby authorize the above mentioned Assignee, its successors and assigns, or anyone it may properly designate, to insert in this instrument the filing date and application number of said provisional application when ascertained.

We further authorize said Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of said United States application and/or otherwise take advantage of the provisions of the International Convention.

Upon said consideration we do hereby covenant and agree with the said Assignee, its successors and assigns, that we will not execute in writing or do any act whatsoever conflicting with these presents, and that we or our executors or administrators will at any time upon request, without further or additional consideration, but at the expense of the said Assignee, its successors and assigns, execute such additional writings and do such additional acts as said Assignee, its successors and assigns, may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights occurring as a result of such applications or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

Date:__

Day/Month/Year

Joseph Smith

Subscribed to and sworn to before me this _____ day of _____, 20___.

Notary Public

Notary Seal

Date:_____ Day/Month/Year

Andrew Galpin

Subscribed to and sworn to before me this _____ day of _____, 20___,

Notary Public

Notary Seal

Attorney Docket No. 2267.1200WU2

20/3 Date: Day/Month/Year

Christopher Wargo

Subscribed to and sworn to before me this 15 day of Nareholds, 20/3.

Notary Public



RECORDED: 12/04/2015

PATENT REEL: 037208 FRAME: 0259