

## PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT																												
NATURE OF CONVEYANCE:	ASSIGNMENT																												
<b>CONVEYING PARTY DATA</b>																													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Charles L. Arvin</td> <td>02/22/2013</td> </tr> <tr> <td>Alexandre Blander</td> <td>06/24/2013</td> </tr> <tr> <td>Peter J. Brofman</td> <td>06/21/2013</td> </tr> <tr> <td>Donald W. Henderson</td> <td>06/20/2013</td> </tr> <tr> <td>Gareth G. Hougham</td> <td>06/20/2013</td> </tr> <tr> <td>Hsichang Liu</td> <td>06/20/2013</td> </tr> <tr> <td>Eric D. Perfecto</td> <td>06/20/2013</td> </tr> <tr> <td>Srinivasa S.N. Reddy</td> <td>06/25/2013</td> </tr> <tr> <td>Krystyna W. Semkow</td> <td>06/20/2013</td> </tr> <tr> <td>Kamalesh K. Srivastava</td> <td>06/26/2013</td> </tr> <tr> <td>Brian R. Sundlof</td> <td>06/24/2013</td> </tr> <tr> <td>Julien Sylvestre</td> <td>06/20/2013</td> </tr> <tr> <td>Renee L. Weisman</td> <td>06/20/2013</td> </tr> </tbody> </table>		Name	Execution Date	Charles L. Arvin	02/22/2013	Alexandre Blander	06/24/2013	Peter J. Brofman	06/21/2013	Donald W. Henderson	06/20/2013	Gareth G. Hougham	06/20/2013	Hsichang Liu	06/20/2013	Eric D. Perfecto	06/20/2013	Srinivasa S.N. Reddy	06/25/2013	Krystyna W. Semkow	06/20/2013	Kamalesh K. Srivastava	06/26/2013	Brian R. Sundlof	06/24/2013	Julien Sylvestre	06/20/2013	Renee L. Weisman	06/20/2013
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<b>RECEIVING PARTY DATA</b>																													
Name:	International Business Machines Corporation																												
Street Address:	New Orchard Road																												
City:	Armonk																												
State/Country:	NEW YORK																												
Postal Code:	10504																												
<b>PROPERTY NUMBERS Total: 1</b>																													
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<b>CORRESPONDENCE DATA</b>																													
Fax Number:	5167424366																												
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>																													
Phone:	516-742-4343																												

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Email: eberger@ssmp.com  
Correspondent Name: SCULLY, SCOTT, MURPHY & PRESSER, P.C.  
Address Line 1: 400 GARDEN CITY PLAZA  
Address Line 2: Suite 300  
Address Line 4: GARDEN CITY, NEW YORK 11530

ATTORNEY DOCKET NUMBER:	FIS920080238US3 (22835A)
NAME OF SUBMITTER:	Leslie S. Szivos
Signature:	/Leslie S. Szivos/
Date:	07/01/2013
	This document serves as an Oath/Declaration (37 CFR 1.63).

**Total Attachments: 52**

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Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to IBM (the "ASSIGNEE"), its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to IBM, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by IBM, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in IBM, its successors, legal representatives, and assigns, whenever requested by IBM, its successors, legal representatives, or assigns.

IBM DOCKET NUMBER: FIS9200802381US3

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to IBM and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants IBM, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

(1) Legal Name of Inventor: Charles L. Arvin

Signature:  Date: 2-22-2013

(2) Legal Name of Inventor: Alexandre Blander

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(3) Legal Name of Inventor: Peter J. Brofman

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(4) Legal Name of Inventor: Donald W. Henderson

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(5) Legal Name of Inventor: Gareth G. Hougham

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

[IF MORE INVENTORS, ADDITIONAL SIGNATURE PAGE(S) FOLLOWS]

IBM DOCKET NUMBER: FIS920080238US3

(6) Legal Name of Inventor: **Hsichang Liu**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(7) Legal Name of Inventor: **Eric D. Perfecto**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(8) Legal Name of Inventor: **Srinivasa S.N. Reddy**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(9) Legal Name of Inventor: **Krystyna W. Semkow**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(10) Legal Name of Inventor: **Kamalesh K. Srivastava**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(11) Legal Name of Inventor: **Brian R. Sundlof**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

[IF MORE INVENTORS, ADDITIONAL SIGNATURE PAGE(S) FOLLOWS]

IBM DOCKET NUMBER: FIS920080238US3

(12) Legal Name of Inventor: **Julien Sylvestre**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(13) Legal Name of Inventor: **Renee L. Weisman**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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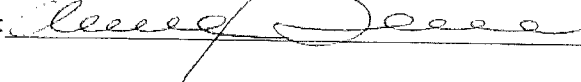
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(SEQ 1\_0 \\* Arabic \r 11) Legal Name of Inventor: **Charles L. Arvin**

Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

(2) Legal Name of Inventor: **Alexandre Blander**

Signature:  Date: June 24<sup>th</sup> 2013

(3) Legal Name of Inventor: **Peter J. Brofman**

Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(3) Legal Name of Inventor: **Peter J. Brofman**

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(3) Legal Name of Inventor: **Peter J. Brofman**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(4) Legal Name of Inventor: **Donald W. Henderson**

Signature: Donald W. Henderson Date: 6/20/2013

(5) Legal Name of Inventor: **Gareth G. Hougham**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

[IF MORE INVENTORS, ADDITIONAL SIGNATURE PAGE(S) FOLLOWS]

(6) Legal Name of Inventor: **Hsichang Liu**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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IBM DOCKET NUMBER: FIS920080238US3

**DECLARATION (37 C.F.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT****Title of Invention: ADDITIVES FOR GRAIN FRAGMENTATION IN Pb-FREE Sn-BASED SOLDER**

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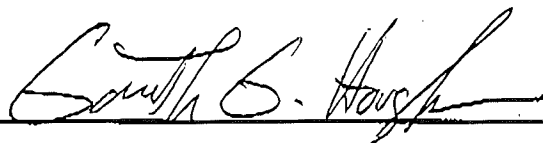
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Signature:  Date: June 20, 2013

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PATENT

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(7) Legal Name of Inventor: **Eric D. Perfecto**Signature: Eric D. Perfecto Date: 6/20/13(8) Legal Name of Inventor: **Srinivasa S.N. Reddy**

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Signature: Srinivasa S.N. Reddy Date: June 25, 2013

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Signature: Krystyna W. Semkow Date: 06/20/2013

(10) Legal Name of Inventor: **Kamalesh K. Srivastava**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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**DECLARATION (37 C.F.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT**

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(10) Legal Name of Inventor: **Kamalesh K. Srivastava**

Signature: Srivastava Date: 06/26/2013

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(11) Legal Name of Inventor: **Brian R. Sundlof**

Signature:  \_\_\_\_\_ Date: 6/24/2013

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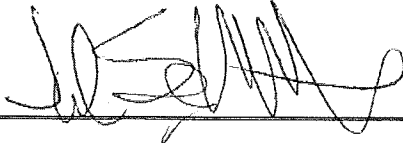
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Signature:  Date: 6/20/2013

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IBM DOCKET NUMBER: FIS920080238US3

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Signature: Renee L Weisman Date: 6/20/2013

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