

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
Name		Execution Date
PARTICULATE SOLID RESEARCH INC.		06/14/2013
RECEIVING PARTY DATA		
Name:	HEMLOCK SEMICONDUCTOR CORPORATION	
Street Address:	12334 GEDDES ROAD	
City:	HEMLOCK	
State/Country:	MICHIGAN	
Postal Code:	48626	
PROPERTY NUMBERS Total: 1		
Property Type	Number	
PCT Number:	US2013056611	
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<i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i>		
Correspondent Name:	HOWARD & HOWARD ATTORNEYS PLLC	
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Address Line 4:	ROYAL OAK, MICHIGAN 48067-2557	
ATTORNEY DOCKET NUMBER:	065610.00031 (3)	
NAME OF SUBMITTER:	MICHAEL J. MINNA	
Signature:	/Michael J. Minna/	
Date:	10/18/2013	
Total Attachments: 2 source=Executed Assignment PSR to Hemlock#page1.tif source=Executed Assignment PSR to Hemlock#page2.tif		

CH \$40.00 US2013056611

ASSIGNMENT

For good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, we the undersigned owner (assignor),

**ASSIGNORS:** Particulate Solid Research Inc.  
4201 W. 36<sup>th</sup> Street, Suite 200  
Chicago, IL 60632

Hereby sells, assigned and transfers to

**ASSIGNEE:** Hemlock Semiconductor Corporation  
12334 Geddes Road  
Hemlock, Michigan 48626

and the successors and assigns of the ASSIGNEE, the entire right, title and interest for the United States and its territorial possessions and in all foreign countries, including all rights to claim priority in and to any and all improvements which are disclosed in the invention entitled

Tapered Fluidized Bed Reactor And Process For Its Use

and which is found in PCT Application Serial No. PCT/US2013/056611 filed on August 26, 2013 which claims priority to U.S. Patent Application Serial No. 61/694,449 filed on 29/AUG/2012 and 61/794,320 filed on 15/MAR/2013 and any legal equivalent thereof in a foreign country, including the right to claim priority, and, in and to, all Letters Patent to be obtained for said invention or arising from or claiming priority to any of the above identified patent applications, or any national filing, continuation, division, renewal, or substitute thereof arising from or claiming priority to any of the above identified patent applications, and as to letters patent any re-issue or re-examination thereof.

To comply with 37 C.F.R. § 3.21 for recordal of this assignment, I, an ASSIGNOR signing below, hereby authorize and request my attorney or agent, as designated in any Power of Attorney I have executed with respect to this invention, to insert the filing dates and serial numbers of the above identified patent applications when they become known in the space above if not already provided.

ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

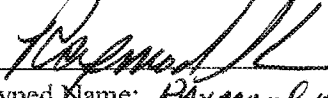
ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and ASSIGNOR will testify as to the same in any interference, litigation or proceeding related thereto.

ASSIGNMENT

ASSIGNOR further covenants to promptly execute and deliver to ASSIGNEE or its successors or assigns any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof and to execute any divisional or continuing application or applications which may be necessary or proper to obtain full protection on the invention hereby assigned; and to execute any and all supplemental oaths and preliminary statements, should the same be necessary or desirable in the prosecution of the aforesaid applications and to carry out the purposes thereof.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my seal  
this 14 day of June, 2013.

Particulate Solid Research Inc.

  
Typed Name: Raymond H. Coco  
(Authorized to sign on behalf of  
Particulate Solid Research Inc.)  
Title: President & CEO

This is to certify that Ray Coco has signed this document in my presence this  
14 day of June, 2013.

  
Signature of Witness