506128114 06/26/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ZHAOQIANG BAI	05/09/2019
MAC D. APODACA	05/07/2019
MICHAEL K. GROBIS	05/08/2019
MICHAEL NICOLAS ALBERT TRAN	05/13/2019
NEIL LESLIE ROBERTSON	05/08/2019
GERARDO A. BERTERO	05/07/2019

RECEIVING PARTY DATA

Name:	SANDISK TECHNOLOGIES LLC
Street Address:	5080 SPECTRUM DRIVE, SUITE 1050W
City:	ADDISON
State/Country:	TEXAS
Postal Code:	75001

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16912719	

CORRESPONDENCE DATA

Fax Number: (415)489-4105

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 4154894100

Email: gbaron@vierramagen.com

TYLER THORP **Correspondent Name:**

Address Line 1: VIERRA MAGEN MARCUS LLP

Address Line 2: 2001 JUNIPERO SERRA BLVD., SUITE 515

Address Line 4: DALY CITY, CALIFORNIA 94014-3888

ATTORNEY DOCKET NUMBER:	SAND-02347US1
NAME OF SUBMITTER:	TYLER THORP
SIGNATURE:	/Tyler Thorp/
DATE SIGNED:	06/26/2020

PATENT REEL: 053060 FRAME: 0473 506128114

Total Attachments: 7 source=2347us1-assignment-parent#page1.tif source=2347us1-assignment-parent#page2.tif source=2347us1-assignment-parent#page3.tif source=2347us1-assignment-parent#page4.tif source=2347us1-assignment-parent#page5.tif source=2347us1-assignment-parent#page6.tif source=2347us1-assignment-parent#page6.tif

PATENT REEL: 053060 FRAME: 0474

JOINT TO CORPORATE ASSIGNMENT

WHEREAS, the undersigned Inventors:

(1)	Zhaoqiang Bai	
a resident of	San Jose, California	;
(2)	Mac D. Apodaca	.
a resident of	Mac D. Apodaca San Jose, California	 ;
(3)	Michael K. Grobis	
a resident of	Campbell, California	;
(4)	Michael Nicolas Albert Tran	
a resident of	San Jose, California	;
(5)	Neil Leslie Robertson	
a resident of	Palo Alto, California	; and
(6)	Gerardo A. Bertero	
a resident of	Redwood City, California	

have invented certain new and useful improvements in:

SET/RESET METHODS FOR CRYSTALLIZATION IMPROVEMENT IN PHASE CHANGE MEMORIES

and have executed a declaration for an application for a United States Patent disclosing and identifying the invention, the declaration being executed on <u>5/7/19</u>; <u>5/8/19</u>; <u>5/9/19</u>; <u>5/13/19</u>.

WHEREAS SanDisk Technologies LLC (hereinafter termed "Assignee"), a limited liability company of the State of Texas, having a place of business at 5080 Spectrum Drive, Suite 1050W, Addison, State of Texas, 75001, wishes to acquire the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said Inventors (all collectively hereinafter termed "said invention"), and in and to any and all patents, certificates of invention and other forms of protection thereon (hereinafter termed "patents") applied for or granted in the United States and/or other countries.

NOW THEREFORE, for good and valuable consideration acknowledged by each of said Inventors to have been received in full from said Assignee:

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Attorney Docket No.: SAND-02347US0 sand/2347/2347-assignment

- 1. Said Inventors do hereby sell, assign, transfer and convey to said Assignee, the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply in any or all countries of the world for patents, certificates of inventions or other governmental grants on said invention, including the right to apply for patents pursuant to the International Convention for the Protection of Industrial Property or pursuant to any other convention, treaty, agreement or understanding; (c) in and to any and all applications filed and any and all patents, certificates of inventions or other governmental grants granted on said invention in the United States or any other country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; (d) in and to each and every reissue or extension of any of said patents; and (e) in and to each and every patent claim resulting from a reexamination certificate for any and all of said patents.
- 2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, executing of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (e) for filing and prosecuting applications for reissue of any of said patents; (f) for interference or other priority proceedings involving said invention; and (g) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.
- 3. The terms and covenants of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.
- 4. Said Inventors hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

Date: 05/09/2019	(1) Transing Ba:	
, ,	Zhaoqiang Bai	
Date:	(2)	
	Mac D. Apodaca	
Date:	(3)	
	Michael K. Grobis	

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Attorney Docket No.: SAND-02347US0 sand/2347/2347-assignment

WDA-4230-US

- 1. Said Inventors do hereby sell, assign, transfer and convey to said Assignee, the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply in any or all countries of the world for patents, certificates of inventions or other governmental grants on said invention, including the right to apply for patents pursuant to the International Convention for the Protection of Industrial Property or pursuant to any other convention, treaty, agreement or understanding; (c) in and to any and all applications filed and any and all patents, certificates of inventions or other governmental grants granted on said invention in the United States or any other country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; (d) in and to each and every reissue or extension of any of said patents; and (e) in and to each and every patent claim resulting from a reexamination certificate for any and all of said patents.
- 2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, executing of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (e) for filing and prosecuting applications for reissue of any of said patents; (f) for interference or other priority proceedings involving said invention; and (g) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said inventors in providing such cooperation shall be paid for by said Assignee.
- 3. The terms and covenants of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.
- 4. Said Inventors hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

Date:	***************************************	(1)Zhaoqiang Bai
Date:	7-May -2019	(2) Nac D. Apodaca
Date:		(3) Michael K. Grobis

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Attorney Docket No.: SAND-02347US0 sand/2347/2347-assignment

WDA-4230-US

- 1. Said Inventors do hereby sell, assign, transfer and convey to said Assignee, the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply in any or all countries of the world for patents, certificates of inventions or other governmental grants on said invention, including the right to apply for patents pursuant to the International Convention for the Protection of Industrial Property or pursuant to any other convention, treaty, agreement or understanding; (c) in and to any and all applications filed and any and all patents, certificates of inventions or other governmental grants granted on said invention in the United States or any other country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; (d) in and to each and every reissue or extension of any of said patents; and (e) in and to each and every patent claim resulting from a reexamination certificate for any and all of said patents.
- 2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, executing of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (e) for filing and prosecuting applications for reissue of any of said patents; (f) for interference or other priority proceedings involving said invention; and (g) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.
- 3. The terms and covenants of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.
- 4. Said Inventors hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

Date:	(1)
	Zhaoqiang Bai
Date:	(2)
, ,	Mac D. Apodaca
Date: <u>5/8//9</u>	(3) Trust 92007
/ /	Michael K. Grobis

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WDA-4230-US

Date: \	05/13/2019	(4)	A. Carrier and Car
			Michael Nicolas Albert Tran
Date: _		(5)	
			Neil Leslie Robertson
Date:		(6)	
			Gerardo A. Bertero

Date:	***************************************	(4)	
Date:	5/8/19	(5)	Michael Nicolas Albert Tran
			Neil Leslie Robertson
Date:	ALABAMAAAAAAAAAAAAAAAAAAA	(6)	
			Gerardo A. Bertero

Date:	(4)
	Michael Nicolas Albert Tran
Date:	(5)
	Neil Leslie Robertson
Date: May 7, 2019	(6) Gerardo Bertero Gerardo A. Bertero
	Gerardo A. Bertero

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RECORDED: 06/26/2020