# PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
Jiaoming Qiu	03/13/2013
Yonghua Chen	03/14/2013
Ganping Ju	03/14/2013
Thomas P. Nolan	03/13/2013

### **RECEIVING PARTY DATA**

Name:	Seagate Technology LLC
Street Address:	10200 South DeAnza Boulevard
City:	Cupertino
State/Country:	CALIFORNIA
Postal Code:	95014

### PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13836521

### **CORRESPONDENCE DATA**

**Fax Number**: 9528542722

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 952-854-2700

Email: tdotter@hdpatlaw.com

Correspondent Name: Hollingsworth Davis

Address Line 1: 8500 Normandale Lake Blvd.

Address Line 2: Suite 320

Address Line 4: Minneapolis, MINNESOTA 55437

ATTORNEY DOCKET NUMBER:	STC.070.I1
NAME OF SUBMITTER:	William B. Ashley
	This document serves as an Oath/Declaration (37 CFR 1.63).

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Total Attachments: 11
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PATENT REEL: 030017 FRAME: 0002

#### COMBINED ASSIGNMENT AND DECLARATION

WHEREAS, Jiaoming Qiu of 6259 Queensland Lane North, Maple Grove, MN 55311; Yonghua Chen of 10548 Morgan Circle, Bloomington, MN 55431; Ganping Ju of 1122 Baur Court, Pleasanton, CA 94566; and Thomas P. Nolan of 279 E. Warren Avenue, Fremont, CA 94539, are the inventors of an invention entitled METHOD FOR PREPARING FEPT MEDIA AT LOW ORDERING TEMPERATURE AND FABRICATION OF EXCHANGE COUPLED COMPOSITE MEDIA AND GRADIENT ANISOTROPY MEDIA FOR MAGNETIC RECORDING that is the subject matter of: (check all that apply)

	a provisional application for l	etters Patent which is identifiable in	the United States Patent and Trademark Office
	by Application No.	filed on	
$\boxtimes$	an application for Letters Pat	ent which is identifiable in the Unite	d States Patent and Trademark Office by
	Application No.	filed on	and/or executed on even date
	herewith: and		
			e Patent Cooperation Treaty which is
	identifiable in the United Stat	es Receiving Office by Application I	No filed on
	; ar	nd/or executed on even date herewit	th:

WHEREAS, Seagate Technology LLC, a limited liability company organized and existing under the laws of the State of Delaware and the United States of America, and having offices at 10200 S. De Anza Blvd, Cupertino, CA 95014 USA, ("Assignee") is desirous of acquiring the entire right, title and interest in and to the invention, the applications, and any and all Letters Patent or similar foreign or domestic legal protection;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, I transfer to Assignee, its successors and assigns, my entire right, title and interest in and to the invention, the above-identified applications, all provisional applications from which any of the above-identified applications claim priority, corresponding domestic and foreign applications, any continuation, division, renewal, or substitute for the applications, all Letters Patent, any reissue, re-examination, or similar legal protection issuing related to the Letters Patent, and all rights and benefits under any applicable treaty or convention; and I authorize the Director of the United States Patent and Trademark Office or foreign equivalent to issue the Letters Patent or similar legal protection to the Assignee.

I authorize the Assignee, its successors and assigns, to insert in this instrument the filing date(s) and application numbers when ascertained. I further authorize the Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent or similar legal protection, in its own name if desired, in any and all foreign countries and appoint Assignee the common representative in the above identified international application and any international application for the invention.

I represent to the Assignee, its successors and assigns, that I have not and shall not execute any writing or do any act whatsoever conflicting with this Assignment. I, my executors or administrators, will at any time upon request, without additional consideration, but at the expense of the Assignee, its successors and assigns, execute and deliver to Assignee or its legal representatives such additional writings and do such additional acts as the Assignee, its successors and assigns, may deem desirable to perfect its enjoyment of this grant, and render all assistance in making application for and obtaining, maintaining, and enforcing the Letters Patent or similar legal protection on the invention in any and all countries, including without limitation providing testimony in any related interference, litigation or proceeding.

The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application. 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. I hereby state that I have reviewed and understand the contents of the above identified application, including the claims, as amended by any amendment specifically referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

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	1 Johns VV
	Jaoming Qiu (Inventor)
	02-12-M12
State of Minnesota)	74576
County of HCN/10/10	
On <u>Marcia 13, 2013</u> before me, _	MUSSA ZAKAS, MOTANY (insert name and title of the officer)
name is subscribed to the within instrument and a	ho proved to me on the basis of satisfactory evidence to be the person whose acknowledged to me that he/she executed the same in his/her authorized trument the person, or the entity upon behalf of which the person acted,
I certify under PENALTY OF PERJURY under the paragraph is true and correct.	e laws of the State of Minnesota that the foregoing
WITNESS my hand and official seal.	
	MELISSA ANN ZARNS
Signature \\\ \\\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\	MY COMMISSION EXPIRES 01/31/17 }  (Seal)
Signature of Notary Public	
**************************************	Yonghua Chen (Inventor)
State of Minnesota)	Date
•	Date
County of)	
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County of	
County of	(insert name and title of the officer) who proved to me on the basis of satisfactory evidence to be the person and acknowledged to me that he/she executed the same in his/her
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PATENT REEL: 030017 FRAME: 0004

Rev: 10/18/2012

Attorney Docket No.: STC.070.11 Seagate Docket No.: STL14799.20US

-2-

U.S. Assignment - Seagate Technology LLC - Confidential

#### COMBINED ASSIGNMENT AND DECLARATION

WHEREAS, Jiaoming Qiu of 6259 Queensland Lane North, Maple Grove, MN 55311; Yonghua Chen of 10548

WHEREAS, Seagate Technology LLC, a limited liability company organized and existing under the laws of the State of Delaware and the United States of America, and having offices at 10200 S. De Anza Blvd, Cupertino, CA 95014 USA, ("Assignee") is desirous of acquiring the entire right, title and interest in and to the invention, the applications, and any and all Letters Patent or similar foreign or domestic legal protection;

NOW. THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged. I transfer to Assignee, its successors and assigns, my entire right, title and interest in and to the invention, the above-identified applications, all provisional applications from which any of the above-identified applications claim priority, corresponding domestic and foreign applications, any continuation, division, renewal, or substitute for the applications, all Letters Patent, any reissue, re-examination, or similar legal protection issuing related to the Letters Patent, and all rights and benefits under any applicable treaty or convention; and I authorize the Director of the United States Patent and Trademark Office or foreign equivalent to issue the Letters Patent or similar legal protection to the Assignee.

I authorize the Assignee, its successors and assigns, to insert in this instrument the filing date(s) and application numbers when ascertained. I further authorize the Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent or similar legal protection, in its own name if desired, in any and all foreign countries and appoint Assignee the common representative in the above identified international application and any international application for the invention.

I represent to the Assignee, its successors and assigns, that I have not and shall not execute any writing or do any act whatsoever conflicting with this Assignment. I, my executors or administrators, will at any time upon request, without additional consideration, but at the expense of the Assignee, its successors and assigns, execute and deliver to Assignee or its legal representatives such additional writings and do such additional acts as the Assignee, its successors and assigns, may deem desirable to perfect its enjoyment of this grant, and render all assistance in making application for and obtaining, maintaining, and enforcing the Letters Patent or similar legal protection on the invention in any and all countries, including without limitation providing testimony in any related interference, litigation or proceeding.

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U.S. Assignment - Seagate Technology LLC - Confidential

	Jiaoming Qiu (Inventor)
	Date
State of Minnesota)	
County of)	
Onbefore me,	(insert name and title of the officer)
	(insert name and title of the officer)
name is subscribed to the within instrument and a	ho proved to me on the basis of satisfactory evidence to be the person whos acknowledged to me that he/she executed the same in his/her authorized trument the person, or the entity upon behalf of which the person acted,
I certify under PENALTY OF PERJURY under the paragraph is true and correct.	e laws of the State of Minnesota that the foregoing
WITNESS my hand and official seal.	
SignatureSignature of Notary Public	(Seal)
**************************************	***************************************
	Yonghua Chen (Inventor)  3 / 14 / 2 o 13  Date
State of Minnesota)	Date
County of	
On <u>Mu/// 14/x20/3</u> before me,	Teresa M. Falid Less Valles y (insert name and title of the officer)
whose name is subscribed to the within instrumer	ho proved to me on the basis of satisfactory evidence to be the person it and acknowledged to me that he/she executed the same in his/her on the instrument the person, or the entity upon behalf of which the person
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U.S. Assignment - Seagate Technology LLC - Confidential

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	Ganping Ju (Inventor)
0.4.70.85.10	Date
State of California)	
County of	
On before me,	(insert name and title of the officer)
	(insert name and title of the officer)
name is subscribed to the within instrument an	no proved to me on the basis of satisfactory evidence to be the person whose d acknowledged to me that he/she executed the same in his/her authorized instrument the person, or the entity upon behalf of which the person acted,
I certify under PENALTY OF PERJURY under paragraph is true and correct.	the laws of the State of California that the foregoing
WITNESS my hand and official seal.	
SignatureSignature of Notary Public	_ (Seal)
*******************	**************************************
	Thomas P. Nolan (Inventor)
Otata of Outformin)	Date
State of California)	
County of	
On before me,	(insert name and title of the officer)
	(insert name and title of the officer)
whose name is subscribed to the within instrum authorized capacity, and that by his/her signatu acted, executed the instrument.	r), who proved to me on the basis of satisfactory evidence to be the person ent and acknowledged to me that he/she executed the same in his/her re on the instrument the person, or the entity upon behalf of which the person he laws of the State of California that the foregoing
paragraph is true and correct.	ne laws of the State of Cambrilla that the foregoing
WITNESS my hand and official seal.	
Signature Signature of Notary Public	_ (Seal)

U.S. Assignment - Seagate Technology LLC - Confidential

-3-

# COMBINED ASSIGNMENT AND DECLARATION

WHEREAS, Jiaoming Qiu of 6259 Queensland Lane North, Maple Grove, MN 55311; Yonghua Chen of 10548 Morgan Circle, Bloomington, MN 55431; Ganping Ju of 1122 Baur Court, Pleasanton, CA 94566; and Thomas P. Nolan of 279 E. Warren Avenue, Fremont, CA 94539, are the inventors of an invention entitled <a href="METHOD FOR PREPARING FEPT MEDIA AT LOW ORDERING TEMPERATURE AND FABRICATION OF EXCHANGE COUPLED COMPOSITE MEDIA AND GRADIENT ANISOTROPY MEDIA FOR MAGNETIC RECORDING that is the subject matter of: (check all that apply)

	a provisional application for Letters by Application No.	Patent which is identifiable in	the United States Patent and Trademark Office
5 2	by Application No.	Illed OII	**************************************
$\boxtimes$	an application for Letters Patent wh	ich is identifiable in the Unite	d States Patent and Trademark Office by
	Application No.	filed on	
	herewith: and	W732	
	an international application for Lette	ers Patent filed pursuant to th	Patent Cooperation Treaty which is
	identifiable in the United States Rec	eiving Office by Application I	lo filed on
	; and/or ex	recuted on even date herewi	h:

WHEREAS, Seagate Technology LLC, a limited liability company organized and existing under the laws of the State of Delaware and the United States of America, and having offices at 10200 S. De Anza Blvd, Cupertino, CA 95014 USA, ("Assignee") is desirous of acquiring the entire right, title and interest in and to the invention, the applications, and any and all Letters Patent or similar foreign or domestic legal protection;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged. I transfer to Assignee, its successors and assigns, my entire right, title and interest in and to the invention, the above-identified applications, all provisional applications from which any of the above-identified applications claim priority, corresponding domestic and foreign applications, any continuation, division, renewal, or substitute for the applications, all Letters Patent, any reissue, re-examination, or similar legal protection issuing related to the Letters Patent, and all rights and benefits under any applicable treaty or convention; and I authorize the Director of the United States Patent and Trademark Office or foreign equivalent to issue the Letters Patent or similar legal protection to the Assignee.

I authorize the Assignee, its successors and assigns, to insert in this instrument the filing date(s) and application numbers when ascertained. I further authorize the Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent or similar legal protection, in its own name if desired, in any and all foreign countries and appoint Assignee the common representative in the above identified international application and any international application for the invention.

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U.S. Assignment - Seagate Technology LLC - Confidential

	Attorney Docket No.: STC.070.11
	Seagate Docket No.: STL14799.20US
**************************************	**********************
	Ganping Ju (Inventor)
	3/14/13
State of California)	Date
County of Alameda	
a Name IH 2013	0.000
On March 11, 2015 before me, DA	PINDER BHAGRATH, NOTARY RELIC
name is subscribed to the within instrument and ackn	red to me on the basis of satisfactory evidence to be the person whose owledged to me that he/she executed the same in his/per authorized ent the person, or the entity upon behalf of which the person acted,
I certify under PENALTY OF PERJURY under the law paragraph is true and correct.	s of the State of California that the foregoing
Signature of Notary Public (S	DAPINDER BHAGRATH COMM. # 2001768  NOTARY PUBLIC - CALIFORNIA SANTA CLARA COUNTY  My Comm. Exp. Jan 18, 2017
Signature of Milary Labile	
**************************************	**************************************
	**************************************
	Thomas P. Nolan (Inventor)
	Thomas P. Nolan (Inventor)
	(************************************
***********************	Thomas P. Nolan (Inventor)
**************************************	Thomas P. Nolan (Inventor)  Date
**************************************	Thomas P. Nolan (Inventor)  Date
State of California)  County of	Thomas P. Nolan (Inventor)  Date
State of California)  County of	Thomas P. Nolan (Inventor)  Date  (insert name and title of the officer)  proved to me on the basis of satisfactory evidence to be the person dacknowledged to me that he/she executed the same in his/her ne instrument the person, or the entity upon behalf of which the person
State of California)  County of	Thomas P. Nolan (Inventor)  Date  (insert name and title of the officer)  proved to me on the basis of satisfactory evidence to be the person dacknowledged to me that he/she executed the same in his/her ne instrument the person, or the entity upon behalf of which the person
State of California)  County of	Thomas P. Nolan (Inventor)  Date  (insert name and title of the officer)  proved to me on the basis of satisfactory evidence to be the person dacknowledged to me that he/she executed the same in his/her ne instrument the person, or the entity upon behalf of which the person is of the State of California that the foregoing

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U.S. Assignment - Seagate Technology LLC - Confidential

	Jiaoming Qiu (Inventor)
State of Minnesota)	Date
County of)	
On hefore me	(insert name and title of the officer)
boloto no, _	(insert name and title of the officer)
personally appeared Jiaoming Qiu (Inventor), we name is subscribed to the within instrument and	tho proved to me on the basis of satisfactory evidence to be the person whose acknowledged to me that he/she executed the same in his/her authorized trument the person, or the entity upon behalf of which the person acted,
I certify under PENALTY OF PERJURY under the paragraph is true and correct.	e laws of the State of Minnesota that the foregoing
WITNESS my hand and official seal.	
SignatureSignature of Notary Public	(Seal)
Signature of Notary Public	
	Yonghua Chen (Inventor)
State of Minnesota)	Date
State of Minnesota)	
County of)	
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	(insert name and title of the officer)
whose name is subscribed to the within instrumen	ho proved to me on the basis of satisfactory evidence to be the person it and acknowledged to me that he/she executed the same in his/her on the instrument the person, or the entity upon behalf of which the person
I certify under PENALTY OF PERJURY under the paragraph is true and correct.	laws of the State of Minnesota that the foregoing
WITNESS my hand and official seal.	
Signature	(Seal)
Signature Signature of Notary Public	
U.S. Assignment - Seagate Technology LLC - Confident	tial -2- Rev: 10/18/2012

**PATENT REEL: 030017 FRAME: 0010** 

# COMBINED ASSIGNMENT AND DECLARATION

WHEREAS, Jiaoming Qiu of 6259 Queensland Lane North, Maple Grove, MN 55311: Yongbua Chen of 10548

		***************************************	
IVIO	gan Circle, Bloomington, N	MN 55431; Ganping Ju of 1122 Baur Court, P	leasanton, CA 94566; and Thomas P.
Nol	an of 279 E. Warren Avenu	ue, Fremont, CA 94539, are the inventors of a	an invention entitled METHOD FOR
		T LOW ORDERING TEMPERATURE AND F	
		DIA AND GRADIENT ANISOTROPY MEDIA	
	subject matter of: (check a		
a provisional application for Letters Patent which is identifiable in the United States Patent and Trade			
	by Application No.	filed on	*
X	n application for Letters Patent which is identifiable in the United States Patent and Trademark Office by		
		filed on	
	herewith: and	mod off	and/or excedted on every date
		n for Letters Patent filed pursuant to the Pater	nt Cooperation Treats which is
L	an international application	rior collers rateric filed pursuant to the rater	nicooperation freaty which is
	identifiable in the United S	tates Receiving Office by Application No	filed on
		and/or executed on even date herewith:	
WH	EREAS, Seagate Technologic	ogy LLC, a limited liability company organized	d and existing under the laws of the State
		ates of America, and having offices at 10200	

of Delaware and the United States of America, and having offices at 10200 S. De Anza Blvd, Cupertino, CA 95014 USA, ("Assignee") is desirous of acquiring the entire right, title and interest in and to the invention, the applications, and any and all Letters Patent or similar foreign or domestic legal protection;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, I transfer to Assignee, its successors and assigns, my entire right, title and interest in and to the invention, the above-identified applications, all provisional applications from which any of the above-identified applications claim priority, corresponding domestic and foreign applications, any continuation, division, renewal, or substitute for the applications, all Letters Patent, any reissue, re-examination, or similar legal protection issuing related to the Letters Patent, and all rights and benefits under any applicable treaty or convention; and I authorize the Director of the United States Patent and Trademark Office or foreign equivalent to issue the Letters Patent or similar legal protection to the Assignee.

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U.S. Assignment - Seagate Technology LLC - Confidential

	Jiaoming Qiu (Inventor)
State of Minnesota)	540
County of	
Onbefore me	e,(insert name and title of the officer)
	(insert name and title of the officer)
name is subscribed to the within instrument a	r), who proved to me on the basis of satisfactory evidence to be the person whose and acknowledged to me that he/she executed the same in his/her authorized instrument the person, or the entity upon behalf of which the person acted,
I certify under PENALTY OF PERJURY under paragraph is true and correct.	er the laws of the State of Minnesota that the foregoing
WITNESS my hand and official seal.	
Signature Signature of Notary Public	(Seal)
**************	**************************************
	Yonghua Chen (Inventor)
	rongina onen (mvemor)
State of Minnesota)	Date
County of	
before me	(insert name and title of the officer)
personally appeared Yonghua Chen (Inventor whose name is subscribed to the within instru	r), who proved to me on the basis of satisfactory evidence to be the person ment and acknowledged to me that he/she executed the same in his/her ture on the instrument the person, or the entity upon behalf of which the person
I certify under PENALTY OF PERJURY under paragraph is true and correct.	the laws of the State of Minnesota that the foregoing
WITNESS my hand and official seal.	
Signature	(Seal)
Signature Signature of Notary Public	
U.S. Assignment - Seagate Technology LLC - Confi	idential -2- Rev: 10/18/2012

**PATENT REEL: 030017 FRAME: 0012** 

Attorney Docket No.: STC.070.11 Seagate Docket No.: STL14799.20US Ganping Ju (Inventor) Date State of California) County of \_\_\_\_\_ (insert name and title of the officer) personally appeared Ganping Ju (Inventor), who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument. I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal. Signature (Seal) Signature of Notary Public Thomas P. Nolan (Inventor) State of California) On March 13, 2013 before me, DAPINDER BHAGRATH, NOTARY PUBLIC (insert name and title of the officer) personally appeared Thomas P. Nolan (Inventor), who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/ber authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument. I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public

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DAPINDER BHAGRATH COMM. # 2001768 NOTARY PUBLIC - CALIFORNIA SANTA CLARA COUNTY My Comm. Exp. Jan 18, 2017