PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Hai Li	08/16/2017
Jian-Gang Zhu	08/27/2017

RECEIVING PARTY DATA

Name:	CARNEGIE MELLON UNIVERSITY	
Street Address:	5000 FORBES AVENUE	
City:	PITTSBURGH	
State/Country:	PENNSYLVANIA	
Postal Code:	15213	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15675135

CORRESPONDENCE DATA

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Correspondent Name: STEVEN J. PETKOVSEK Address Line 1: FISH & RICHARDSON P.C.

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ATTORNEY DOCKET NUMBER:	26100-0086001	
NAME OF SUBMITTER:	MARY FLORCZAK	
SIGNATURE:	/Mary Florczak/	
DATE SIGNED:	04/13/2018	

Total Attachments: 4

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PATENT REEL: 045538 FRAME: 0583

Attorney Docket No.: 26100-0086001 / 2016-257

ASSIGNMENT

For valuable consideration, the receipt of which we acknowledge, and intending to be bound legally, we, <u>HAILI</u>, and <u>JIAN-GANG ZHU</u>, each individually assign to <u>CARNEGIE MELLON UNIVERSITY</u>, a University formed under the laws of <u>Pennsylvania</u> and having a principal place of business at <u>5000 Forbes Avenue</u>, <u>Pittsburgh</u>, <u>PA 15213</u>, and its successors, transferees, and assignees (collectively the "Assignee"), all of our individual and joint right, title, and interest throughout the world in the subject matter (the "Subject Matter") of a patent application that names us as inventors, is titled "<u>MAGNETIC RECORDING DEVICE</u>," and was filed in the United States Patent and Trademark Office on August 11, 2017, as application 15/675,135 (the "Application").

This Assignment assigns (a) the Application and all other applications that may be made for, and all patents, utility models, design registrations, and other rights of exclusion and inventors' certificates for, any of the Subject Matter (collectively the "Applications and Granted Rights") in every country or region, (b) the right to claim priority based on and the benefit of the filing date of any of the Applications and Granted Rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other applicable treaties or conventions, and (c) the right to pursue, collect, and retain in the Assignee's name or otherwise, damages and any other remedies arising from any past, present, or future infringement of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment.

We authorize the Assignee to apply for and pursue protection for any or all of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment in all countries, regions, and territories of the world, in our names or in the Assignee's name.

We represent and warrant that we have the right and power to make this Assignment and that we have not made and will not make any other assignment that conflicts with this Assignment.

We will communicate to the Assignee (or at the request of the Assignee to other parties) all known facts in any form relating to the Subject Matter, will execute and provide all oaths and declarations, statements, testimony, assignments, powers of attorney, applications, and

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documents, and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

Assignment Page 2 of 4

HAILI	Date: Ang 16 of 107
Witnessed by: Signature: Ywase 7 Oin	Date: 147,16,201
Print Name: Xuive Qih	Const.
Signature: <u>WA-B</u>	Date Aug 16 2017

JIAN-GANG ZHU	Date: 08-17-2017			
Witnessed by Signature Les Eleg L				
, , , , , , , , , , , , , , , , , , ,	Date: 08-27 - 2017			
Print Name: Day & Lay WK				
Signature: Ywww Qin	Dute: 08-54-5014			
Print Name: YAAAA QIN				
The Assigned hereby acknowledges and accepts the foregoing assignment				
Assignce: CARNEGIE MELLON UNIVE	RSETY			
Signature:	Date:			
Name:	***************************************			
Title:				

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