501993453 07/18/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Hisashi HORI	07/02/2012
Hideyo OSANAI	02/07/2012
Takayuki TAKAHASHI	03/07/2012

RECEIVING PARTY DATA

Name:	DOWA METALTECH CO., LTD
Street Address:	14-1, SOTOKANDA, 4-CHOME
Internal Address:	CHIYODA-KU
City:	ТОКУО
State/Country:	JAPAN
Postal Code:	101-0021

Name:	NIPPON LIGHT METAL COMPANY, LTD
Street Address:	2-20, HIGASHI-SHINAGAWA, 2-CHOME
Internal Address:	SHINAGAWA-KU
City:	токуо
State/Country:	JAPAN
Postal Code:	140-8628

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13521922

CORRESPONDENCE DATA

501993453

Fax Number: (202)955-3751 202-955-3750 Phone:

ajh@raderfishman.com Email:

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

PATENT

REEL: 028578 FRAME: 0846

Correspondent Name: Rader, Fishman & Grauer, PLLC

Address Line 1: 1233 20th Street

Address Line 2: 501

Address Line 4: Washington, DISTRICT OF COLUMBIA 20036

ATTORNEY DOCKET NUMBER: KKH-0072

NAME OF SUBMITTER: Carl Schaukowitch

Total Attachments: 4

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PATENT REEL: 028578 FRAME: 0847

ASSIGNMENT

WHEREAS, I, as a below named inventor, residing at the address stated next to my name, am a sole inventor (if only one name is listed below) or a joint inventor (if plural names are listed below) of certain new and useful improvements in

FIN-INTEGRATED SUBSTRATE AND MANUFACTURING METHOD OF FIN-INTEGRATED SUBSTRATE

for which application for Letters Patent of the United States of America was executed by me on the date indicated next to my name and address;

AND WHEREAS, DOWA METALTECH CO., LTD., a Japanese corporation with offices at 14-1, Sotokanda 4-chome, Chiyoda-ku, Tokyo 101-0021 JAPAN and NIPPON LIGHT METAL COMPANY, LTD., a Japanese corporation with offices at 2-20, Higashi-shinagawa 2-chome, Shinagawa-ku, TOKYO 140-8628, JAPAN (hereinafter each referenced as ASSIGNEE) are desirous of acquiring a one half (1/2) share each of all interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar legal protection which may be granted therefor in the United States and in any and all foreign countries;

ASSIGNEE is desirous of acquiring all interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar legal protection which may be granted therefor in the United States and in any and all foreign countries;

NOW THEREFORE, in consideration of the sum of Ten Dollar (\$10.00), and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I, as a sole or joint inventor as indicated below, by these presents do hereby assign, sell and transfer unto the said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in the said invention, said application, including any divisions and continuations thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to any all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue the said United States Letters Patent to said ASSIGNEE, as the assignee of the whole right, title and interest thereto;

> PATENT REEL: 028578 FRAME: 0848

And I further agree to execute all necessary or desirable and lawful future documents, including assignments in favor of ASSIGNEE or its designee, as ASSIGNEE or its successors, assigns and legal representatives may from time-to-time present to me and without further remuneration, in order to perfect title in said invention, modifications, and improvements in said invention, applications and Letters Patent of the United States and countries foreign thereto;

And I further agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for application for foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters Patent which may be granted for my aforesaid invention, as the ASSIGNEE thereof shall hereafter require and prepare at its own expense;

And I further agree that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to me and will testify as to the same in any interference or litigation related thereto;

And I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

And I hereby authorize and request my attorney(s) of record in this application to insert the serial number and filing date of this application in the spaces that follow:

Serial Number: 13/521,922 , Filing Date: 07/12/2012

This assignment executed on the dates indicated below.

Hisashi HORI	Hisashi Hori Signature	July 2, 20
	Signature	Dáte
Hideyo OSANAI		
	Signature	Date
Takayuki TAKAHASHI		
2 WITHING THE	Signature	Date
	Signature	Date

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ASSIGNMENT

WHEREAS, I, as a below named inventor, residing at the address stated next to my name, am a sole inventor (if only one name is listed below) or a joint inventor (if plural names are listed below) of certain new and useful improvements in

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ASSIGNEE is desirous of acquiring all interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar legal protection which may be granted therefor in the United States and in any and all foreign countries;

NOW THEREFORE, in consideration of the sum of Ten Dollar (\$10.00), and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I, as a sole or joint inventor as indicated below, by these presents do hereby assign, sell and transfer unto the said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in the said invention, said application, including any divisions and continuations thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to any all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue the said United States Letters Patent to said ASSIGNEE, as the assignee of the whole right, title and interest thereto;

> PATENT REEL: 028578 FRAME: 0850

And I further agree to execute all necessary or desirable and lawful future documents, including assignments in favor of ASSIGNEE or its designee, as ASSIGNEE or its successors, assigns and legal representatives may from time-to-time present to me and without further remuneration, in order to perfect title in said invention, modifications, and improvements in said invention, applications and Letters Patent of the United States and countries foreign thereto;

And I further agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for application for foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters Patent which may be granted for my aforesaid invention, as the ASSIGNEE thereof shall hereafter require and prepare at its own expense;

And I further agree that ASSIGNRE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to me and will testify as to the same in any interference or litigation related thereto;

And I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

And I hereby authorize and request my attorney(s) of record in this application to insert the serial number and filing date of this application in the spaces that follow:

Serial Number: 13/521.922 , Filing Date: 07/12/2012

This assignment executed on the dates indicated below.

Hisashi HORI		
	Signature	Date
van sterrieben	Hideyo Osonai	2/7/201
Hideyo OSANAT	Signature	Date
	Jakayoki Jakohi	Sti
Takayuki TAKAHASHI	T. Takakashi	3/7/2012
	Signature	Date
<u> </u>	Signature	Date

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