Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Hideo lizuka	06/24/2010
Yasuhiko Takeda	06/24/2010
Hisayoshi Fukijawa	06/25/2010

RECEIVING PARTY DATA

Name:	Toyota Motor Engineering & Manufacturing North America, Inc.
Street Address:	25 Atlantic Avenue
City:	Erlanger
State/Country:	KENTUCKY
Postal Code:	41018

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12831587

CORRESPONDENCE DATA

Fax Number: (248)649-3338

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

Phone: 248.649.3333

Email: docket@youngbasile.com
Correspondent Name: Christopher G. Darrow

Address Line 1: 3001 West Big Beaver Rd., Ste. 624

Address Line 2: Young Basile

Address Line 4: Troy, MICHIGAN 48084

ATTORNEY DOCKET NUMBER:	TRDL-104-A
NAME OF SUBMITTER:	Christopher G. Darrow

Total Attachments: 4

source=TRDL104A_Assign1#page1.tif

PATENT REEL: 024772 FRAME: 0604 1283158/

CH \$40.00

501249736

source=TRDL104A_Assign1#page2.tif source=TRDL104A_Assign2#page1.tif source=TRDL104A_Assign2#page2.tif

> PATENT REEL: 024772 FRAME: 0605

ASSIGNMENT AND AGREEMENT

WHEREAS, Hideo IIZUKA of 4949 Ravine Court, Ann Arbor, Michigan 48105, (hereinafter referred to as "ASSIGNOR") has invented, along with co-inventors Yasuhiko Takeda and Hisayoshi Fujikawa, a certain invention entitled SOLAR CELL ASSEMBLY WITH DIFFRACTION GRATINGS as set forth in this United States Patent Application,

executed concurrently herewith			
executed on			
■ Serial No.	12831587	Filed	07/07/2010

WHEREAS, Toyota Motor Engineering & Manufacturing North America, Inc., a corporation of the state of Kentucky having its principal place of business at 25 Atlantic Avenue, Erlanger, Kentucky 41018, (hereinafter referred to as "ASSIGNEE"), desires to acquire the entire right, title, and interest in and to said invention held by inventor Hideo lizuka;

NOW THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR has sold, assigned, and transferred, and by these presents hereby sells, assigns and transfers, unto ASSIGNEE, its successors and assigns, the full and exclusive right, title, and interest in and to (a) the above-identified invention or inventions and all improvements and modifications thereof, (b) the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto for the above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the International Convention and any other international agreement to which the United States adheres; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee for the sole use and benefit of ASSIGNEE, and its successors and assigns.

ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representatives or agents, all facts and information known or available to ASSIGNORS respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings,

Page 1 of 2

whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of Young Basile Hanlon & MacFarlane, P.C. the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of Young Basile Hanlon & MacFarlane, P.C. do not personally represent ASSIGNOR or ASSIGNOR'S legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNORS with respect to this Assignment, ASSIGNOR acknowledges his right to seek his own independent legal counsel.

۸	AMES AND SIGNATURE OF ASSIGNOR	रङ
Name: Hideo IIZUKA	Signature: Nicley Clizuka	Date: 6/24/2010
Name:	Signature:	Date:
Name:	Signature:	Date:
Name:	Signature:	Date:
	NAMES AND SIGNATURE OF WITNES	S
Name: Yoshikazu Asa	the Signature: Joshkan to	_O Date: 6/24/2010

Note: *Prima facie* evidence of execution may optionally be obtained by execution of this document before a U.S. Consul or before a local officer authorized to administer oaths whose authority is proved by a certificate from a U.S. Consul.

Page 2 of 2

ASSIGNMENT AND AGREEMENT

WHEREAS, Yasuhiko TAKEDA of 207-5, Yamanota, Nagakute-cho, Aichi-gun, Aichi 480-1113 JAPAN and Hisayoshi FUJIKAWA of 2-238-18 kitamatsuyama-cho, Seto, Aichi 489-0911 JAPAN (hereinafter referred to as "ASSIGNORS"), along with a co-inventor Hideo lizuka, have invented a certain invention entitled SOLAR CELL ASSEMBLY WITH DIFFRACTION GRATINGS as set forth in this United States Patent Application,

executed con	currently herewith		
executed on			
Serial No.	12831587	Filed _	07/07/2010

WHEREAS, Toyota Motor Engineering & Manufacturing North America, Inc., a corporation of the state of Kentucky having its principal place of business at 25 Atlantic Avenue, Erlanger, Kentucky 41018, (hereinafter referred to as "ASSIGNEE"), desires to acquire the entire right, title, and interest in and to said invention;

NOW THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNORS have sold, assigned, and transferred, and by these presents hereby sell, assign and transfer, unto ASSIGNEE, its successors and assigns, the full and exclusive right, title, and interest in and to (a) the above-identified invention or inventions and all improvements and modifications thereof, (b) the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto for the above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the International Convention and any other international agreement to which the United States adheres; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNORS HEREBY AUTHORIZE AND REQUEST the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee for the sole use and benefit of ASSIGNEE, and its successors and assigns.

ASSIGNORS HEREBY AGREE (a) to communicate to ASSIGNEE, its successors and assigns, or their representatives or agents, all facts and information known or available to ASSIGNORS respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings,

Page 1 of 2

whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and relssue applications, renewals, assignments, powers of attorney, oaths, affidavits, declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

ASSIGNORS HEREBY REPRESENT AND WARRANT that ASSIGNORS have the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNORS have not executed and will not execute any document or instrument in conflict herewith.

ASSIGNORS HEREBY GRANT to the law firm of Young Basile Hanlon & MacFarlane, P.C. the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNORS UNDERSTAND AND AGREE that the attorneys and agents of the law firm of Young Basile Hanlon & MacFarlane, P.C. do not personally represent ASSIGNOR or ASSIGNORS' legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNORS with respect to this Assignment, ASSIGNORS acknowledge their right to seek their own independent legal counsel.

NAMES AND SIGNATURE OF ASSIGNORS			
Name: Yasuhiko TAKEDA	Signature: Yarufuko Tanada	Date: ine 24,2010	
Name: Hisayoshi FUJIKAWA	Signature: Hisayoshi Fujikawa	Date: Time 25, 2010	
Name:	Signature:	Date:	
NAMES AND SIGNATURE OF WITNESS			
Name: Kazushi Jimbo	Signature: Kazushi Jinda	Date: June 28, 20/0	

Note: Prima facie evidence of execution may optionally be obtained by execution of this document before a U.S. Consul or before a local officer authorized to administer oaths whose authority is proved by a certificate from a U.S. Consul.

Page 2 of 2

RECORDED: 08/02/2010