

**PATENT ASSIGNMENT**

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT								
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT								
<b>CONVEYING PARTY DATA</b>									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Ting . He</td> <td>09/21/2001</td> </tr> <tr> <td>Eisuke . Kimura</td> <td>09/21/2001</td> </tr> <tr> <td>Tadashi . Nomura</td> <td>09/27/2001</td> </tr> </tbody> </table>		Name	Execution Date	Ting . He	09/21/2001	Eisuke . Kimura	09/21/2001	Tadashi . Nomura	09/27/2001
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Eisuke . Kimura	09/21/2001								
Tadashi . Nomura	09/27/2001								
<b>RECEIVING PARTY DATA</b>									
<b>Name:</b>	Honda Giken Kogyo Kabushiki Kaisha								
<b>Street Address:</b>	No. 1-1, Minami-Aoyama 2-Chome								
<b>Internal Address:</b>	Minato-Ku								
<b>City:</b>	Tokyo								
<b>State/Country:</b>	JAPAN								
<b>Postal Code:</b>	107-8556								
<b>PROPERTY NUMBERS Total: 1</b>									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>11869213</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	11869213				
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Application Number:	11869213								
<b>CORRESPONDENCE DATA</b>									
<b>Fax Number:</b>	(614)227-2100								
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>									
<b>Phone:</b>	614-227-2188								
<b>Email:</b>	ebaranowski@porterwright.com								
<b>Correspondent Name:</b>	Edwin M. Baranowski								
<b>Address Line 1:</b>	41 S. High St.								
<b>Address Line 2:</b>	Porter Wright Morris & Arthur LLP								
<b>Address Line 4:</b>	Columbus, OHIO 43215								
<b>ATTORNEY DOCKET NUMBER:</b>	3994994-131915								
<b>NAME OF SUBMITTER:</b>	/Edwin M. Baranowski/								
Total Attachments: 10									

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**IN THE UNITED STATES DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE**

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Inventors:           Ting He  
                          Eisuke Kimura  
                          Tadashi Nomura

Serial Number:       To be assigned.

Filed:                September 20, 2001  
                          By Express Mail Receipt No. EL817538612US

For:                  SUBSTRATE HAVING CATALYST COMPOSITIONS ON SURFACES OF  
                          OPPOSITE SIDES AND METHOD FOR PRODUCING THE SAME

Attorney. Docket No.:   3994994-131915-3

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**ASSIGNMENT TO HONDA GIKEN KOGYO KABUSHIKI KAISHA**

Whereas, I/we the undersigned assignors, (1) Ting He, residing at 5794 Norn Street, Dublin, Ohio 43016 USA, a citizen of the People's Republic of China and having a business address at Honda R&D Americas, Inc., 1381 Kinnear Road, Suite 116, Columbus, Ohio 43212; (2) Eisuke Kimura, residing at 6036 Innovation Drive, Dublin, OH 43016, USA, a citizen of Japan and having a business address at Honda R&D Americas, Inc., 1381 Kinnear Road, Suite 116, Columbus, Ohio 43212; and (3) Tadashi Nomura, residing at 687 Imaizumi-cho, Court Izumi C-101, Utsunomiya-shi, Tochigi 321-0962, Japan, a citizen of Japan and having a business address at Honda R&D Co., Ltd. 4630 Shimotakanezawa, Haga-machi Haga-gun Tochigi 321-33, Japan, have invented certain new and useful improvements in SUBSTRATE HAVING CATALYST COMPOSITIONS ON SURFACES OF OPPOSITE SIDES AND METHOD FOR PRODUCING THE SAME, for which I/we have filed an application for Letters Patent of the United States on September 20, 2001 (By Express Mail Receipt No. EL817538612US);

And whereas, Honda Giken Kogyo Kabushiki Kaisha, a corporation of Japan, having a business address of No. 1-1, Minami-Aoyama 2-chome, Minato-ku, Tokyo, Japan, is desirous of acquiring the entire right, title and interest in, to and under the said invention and said patent application, any continuing applications, continuations-in-part, divisional applications, refiled or reissue applications made in the United States and all other Nations which may result from the invention and information disclosed in said application,

and any and all Letters Patent of the United States and other Nations which may be issued therefore;

Now, therefore, for and in consideration of the sum of one dollar (\$1.00) and other good and valuable consideration, the receipt of which I/we each hereby acknowledge, I/we the said Ting He, Eisuke Kimura, and Tadashi Nomura, by these presents do hereby sell, assign and transfer to Honda Giken Kogyo Kabushiki Kaisha the entire and undivided right, title and interest in and to my/our invention of new and useful improvements in and to SUBSTRATE HAVING CATALYST COMPOSITIONS ON SURFACES OF OPPOSITE SIDES AND METHOD FOR PRODUCING THE SAME, my said application for letters patent, the invention therein described, and all rights appurtenant thereto, and in all applications related thereto, including each of the following: the right to apply for any letters patent for said invention for the United States of America and in any and all foreign countries, any and all other applications for letters patent on said invention, in whatsoever countries, including all divisional, renewal, substitute and continuation applications based in whole or in part upon said invention or upon said application or related thereto; any and all letters patent that may issue thereon in the United States and foreign countries and any and all reissues, extensions, renewals, divisions, or continuations of letters patent granted for said inventions or upon said applications, to the full end of the term or terms for which said letters patent may be issued; and every priority or other right accorded by every international convention, treaty or agreement that is or may be predicated upon or arise from said invention, application and other applications or letters patent therefor, all to be held and enjoyed by Honda Giken Kogyo Kabushiki Kaisha, its successors and assigns, all the same as I/we would have held and enjoyed had this Assignment not been made.

I/we hereby authorize and grant the right to Honda Giken Kogyo Kabushiki Kaisha to file and prosecute patent applications in any or all countries on all or any part of said invention in my/our name or in the name of Honda Giken Kogyo Kabushiki Kaisha or otherwise, as Honda Giken Kogyo Kabushiki Kaisha may deem advisable under any international convention, treaty, or agreement or otherwise.

I/we hereby request and authorize the Commissioner of Patents and Trademarks of the United States and the empowered officials of all other countries to grant, issue and transfer any letters patent for the said inventions arising out of said application to Honda Giken Kogyo Kabushiki Kaisha, as assignee of the entire right, title and interest therein, in accordance with this instrument of assignment.

I/we hereby represent and warrant that there are no rights or interest outstanding inconsistent with the rights and interests granted herein; I/we covenant that I/we will not execute, grant, or transfer any rights or interests inconsistent herewith, I/we bind myself/ourselves, my/our heirs, executors, administrators and legal representatives to execute and deliver to Honda Giken Kogyo Kabushiki Kaisha, its successors and assigns, any further documents or instruments and to perform any and all further acts that may be

deemed necessary to enable it, its successors and assigns to file the said applications for letters patent and for the said invention in any country in which it may elect to file such applications, and to vest in Honda Giken Kogyo Kabushiki Kaisha, its successors and assigns, the title herein conveyed and intended to so be, and to enable such title to be recorded in the United States and each foreign country in which each such application may be filed so that any patent issued thereon shall be issued to Honda Giken Kogyo Kabushiki Kaisha, its successors and assigns; and I/we further covenant and agree, for myself/ourselves and my/our executors, administrators and legal representatives, that I/we and they will, upon request, communicate to, its successors and assigns, any facts relating to the said invention and the history thereof, known to me or them and that I/we and they will testify as to the same in any proceeding, interference or litigation when requested to do so by Honda Giken Kogyo Kabushiki Kaisha, its successors and assigns.

INVENTOR #1:

Full name of inventor: Ting He

Inventor's signature:



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Date: September 21, 2001

Residence Address: 5794 Norn Street  
Dublin, Ohio 43016

Business Address: Honda R&D Americas, Inc.  
1381 Kinnear Road  
Suite 116  
Columbus, Ohio 43212

Citizenship: People's Republic of China

STATE OF OHIO :  
: ss:  
COUNTY OF UNION :

Before me personally appeared Ting He who acknowledged to me that the execution of the foregoing instrument is his free act and deed, this 21<sup>st</sup> day of September 2001.



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Notary Public

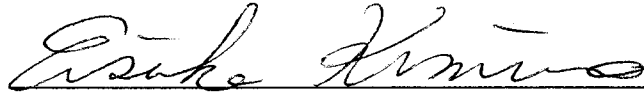
MARK E. DUELL  
ATTORNEY AT LAW  
NOTARY PUBLIC-STATE OF OHIO  
MY COMMISSION HAS NO EXPIRATION DATE  
SEC 147.03 ORC

SEAL

INVENTOR #2:

Full name of inventor: Eisuke Kimura

Inventor's signature:



Date: September 21, 2001

Residence Address: 6036 Innovation Dr.  
Dublin, OH 43016, USA


Business Address: Honda R&D Americas, Inc.  
1381 Kinnear Road  
Suite 116  
Columbus, Ohio 43212

Citizenship: Japan

STATE OF OHIO :  
: ss:  
COUNTY OF UNION :

Before me personally appeared Eisuke Kimura who acknowledged to me that the execution of the foregoing instrument is his free act and deed, this 21<sup>st</sup> day of September 2001.

**MARIE DUELL**  
ATTORNEY AT LAW  
NOTARY PUBLIC-STATE OF OHIO  
MY COMMISSION HAS NO EXPIRATION DATE  
SEC 147.03 ORC



Notary Public

Residence:                      Citizenship:                      Japan

\_\_\_\_\_  
Notary Public

SEAL

INVENTOR #3:

Full name of inventor: Tadashi Nomura

Inventor's signature: Tadashi Nomura

Date: September 27, 2001

Residence Address: 687 Imaizumi-cho, Court Izumi C-101,  
Utsunomiya-shi, Tochigi 321-0962, Japan

Business Address: Honda R&D Co., Ltd.  
4630 Shimotakanezawa  
Haga-machi Haga-gun Tochigi 321-33  
JAPAN

Citizenship: Japan

ACKNOWLEDGEMENT:

Before me personally appeared Tadashi Nomura who acknowledged to me that the execution of the foregoing instrument is his free act and deed, this \_\_\_\_ day of September 2001.

\_\_\_\_\_  
Notary Public

SEAL