PATENT ASSIGNMENT

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------|----------------|
| Erick M. Carreira | 07/05/2005 |

RECEIVING PARTY DATA

| Name: | Erick M. Carreira | |
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| Name: | Sumitomo Chemical Company, Limited | |
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PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 11149643 |

CORRESPONDENCE DATA

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NAME OF SUBMITTER: John Kilyk, Jr.

PATENT REEL: 016317 FRAME: 0472

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Total Attachments: 2

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PATENT REEL: 016317 FRAME: 0473

Leydig, Voit & Mayer, Ltd. Attorneys at Law Two Prudential Plaza Suite 4900 180 North Stetson Chicago, Illinois 60601-6780

ASSIGNMENT OF APPLICATION FOR PATENT

WHEREAS, I,

Erick M. CARREIRA of c/o Laboratory of Organic Chemistry, ETH-Hoenggerberg, Zurich, Switzerland (full name and address, including postal code, of first inventor)

have invented and own a certain new and useful invention entitled:

MONOPHOSPHINE COMPOUND, TRANSITION METAL COMPLEX THEREOF AND PRODUCTION METHOD OF OPTICALLY ACTIVE COMPOUND USING SAID COMPLEX AS ASYMMETRIC CATALYST

for which invention I have executed an application for Letters Patent of the United States which was filed on <u>June 10, 2005</u>, under Serial No. <u>11/149,643</u> and

WHEREAS,

Erick M. CARREIRA of c/o Laboratory of Organic Chemistry, ETH-Hoenggerberg, Zurich, Switzerland and Sumitomo Chemical Company, Limited of 27-1, Shinkawa 2-chome, Chuo-ku, Tokyo 104-8260 Japan

(full name and address, including postal code, of assignee)

(hereinafter referred to as Assignee) is desirous of acquiring the entire right, title, and interest in and under the invention described in the application for Letters Patent.

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that for good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, I have assigned and set over, and by this document do assign and set over, to the Assignee and the Assignee's legal representatives, successors and assigns the entire right, title, and interest in and to the invention in the United States the applications for Letters Patent and other such applications (e.g., continuations, continuations-in-part, divisionals and reissues) in the United States, and the Letters Patent, or extensions thereof, that may or shall issue thereon; and I do hereby authorize and request the Commissioner of Patents and Trademarks to issue the Letters Patent to the above-mentioned Assignee agreeably with the terms of this Assignment.

I HEREBY AUTHORIZE the above-mentioned Assignee to insert in this assignment document the filing date and serial number of the application if the date and number are unknown at the time this assignment is executed.

I DO HEREBY COVENANT and agree with the Assignee that I will not execute any writing or do any act whatsoever conflicting with the terms of this assignment document set forth herein, and that I will at any time upon request, without further or additional consideration, but at the expense of the Assignee, execute such additional assignments and other writings and do such additional acts as the Assignee may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, continuation, renewal, reissued, or extended Letters Patent of the United States or of any and all foreign countries on the invention, and in enforcing any rights or choses in action accruing as a result of such applications or patents, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of both parties.

PATENT REEL: 016317 FRAME: 0474 IN WITNESS WHEREOF, I have hereunder set my hand on the date shown below:

Witness Franziska PEYER Date

Chishau Defices Date

Christian DEFIEBER

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RECORDED: 07/27/2005