

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT | | | | | | |
|--|--|----------------|---------------------|------------|----------------|------------|--|
| NATURE OF CONVEYANCE: | ASSIGNMENT | | | | | | |
| CONVEYING PARTY DATA | | | | | | | |
| <table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>Jin-Suk Lee</td><td>01/04/2007</td></tr><tr><td>Nam-Cheol Shin</td><td>01/04/2007</td></tr></tbody></table> | Name | Execution Date | Jin-Suk Lee | 01/04/2007 | Nam-Cheol Shin | 01/04/2007 | |
| Name | Execution Date | | | | | | |
| Jin-Suk Lee | 01/04/2007 | | | | | | |
| Nam-Cheol Shin | 01/04/2007 | | | | | | |
| RECEIVING PARTY DATA | | | | | | | |
| Name: | Samsung Total Petrochemicals Co., Ltd. | | | | | | |
| Street Address: | 411-1, Dokgod-ri, Daesan-up, Seosan-shi | | | | | | |
| City: | Chungcheongnam Province | | | | | | |
| State/Country: | KOREA, REPUBLIC OF | | | | | | |
| Postal Code: | 356-874 | | | | | | |
| PROPERTY NUMBERS Total: 1 | | | | | | | |
| <table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>11613553</td></tr></tbody></table> | Property Type | Number | Application Number: | 11613553 | | | |
| Property Type | Number | | | | | | |
| Application Number: | 11613553 | | | | | | |
| CORRESPONDENCE DATA | | | | | | | |
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| ATTORNEY DOCKET NUMBER: | W14P1435US | | | | | | |
| NAME OF SUBMITTER: | Cynthia M. Branca | | | | | | |
| Total Attachments: 1 source=Assignment-executed#page1.tif | | | | | | | |

OP \$40.00 11613553

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PATENT
REEL: 018786 FRAME: 0745

10-1-03

ASSIGNMENT OF UNITED STATES PATENT RIGHTS

In consideration of One Dollar and other good and valuable consideration, receipt of which is hereby acknowledged, I

JIN-SUK LEE, a citizen of the Republic of Korea, residing at 1-602 Samsung Apt., Dongmun-dong, Seosan-si, Chungcheongnam Province 356-751, Republic of Korea

NAM-CHEOL SHIN, a citizen of the Republic of Korea, residing at 101-1003 Samsung Apt., Juksung-dong, Seosan-si, Chungcheongnam Province, 356-760, Republic of Korea

hereby sell and assign to

SAMSUNG TOTAL PETROCHEMICALS CO., LTD., a corporation organized under the laws of the Republic of Korea, having a principal place of business at 411-1, Dokgod-ri, Daesan-up, Seosan-shi, Chungcheongnam Province, 356-874, Republic of Korea

its successors and assigns, for the territory of the United States of America, my entire right, title and interest in and to the improvements in

SIMULATED MOVING BED ADSORPTIVE SEPARATION PROCESS USING A PLURALITY OF ADSORPTION CHAMBERS IN PARALLEL AND CRYSTALLIZER AND DEVICE USED THEREIN

invented by me, and the application for United States Letters Patent therefor, **US Application Serial No. 11613553, filed December 20, 2006**, and all original and reissued patents granted therefor, and all divisions and continuations thereof, including the subject matter of any and all claims which may be obtained in every such patent, and covenant that I have full right so to do, and agree that I will communicate to said Company or its representatives all facts known to me respecting said improvements, whenever requested, and will testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue, make all rightful oaths and generally do everything possible to aid said Company, its successors, assigns and nominees, to obtain and enforce proper patent protection for said improvements in the United States.

Jinsuk Lee
Name: **JIN-SUK LEE**

Date: *Jan. 4, 2007*

Nam Cheol Shin
Name: **NAM-CHEOL SHIN**

Date: *Jan. 4, 2007*