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| PATENT ASSIGNMENT | | |
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| Please record the attached original document or copy thereof. | A 64 65 64 65 64 65 65 65 65 65 65 65 65 65 65 65 65 65 | |
| Submission Type: | Conveyance Type: | |
| New | | |
| Resubmission (Non-Recordation): | ⊠ Assignment | |
| Document ID# | igo = 1 | |
| Correction of PTO Error: Reel # Frame # | Other: | |
| Corrective Document: Reel # Frame # | | |
| Name of conveying party(ies) Execution Date (Month/Day/Year) | Name and address of receiving party(ies): | |
| Lewinski, Krzysztof A. October 29, 1999 | 2M Innovative Description | |
| Johnston, Raymond P. October 29, 1999 | 3M Innovative Properties Company P.O. Box 33427 | |
| Herdtle, Thomas October 29, 1999 | | |
| Ylitalo, David A. October 29, 1999 | St. Paul, Minnesota 55133-3427 | |
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| Additional names of conveying party(ies) attached? | , | |
| Yes No | 09/430568 | |
| Application number or patent number: | | |
| This document is being filed with a new patent application | | |
| This document is to be recorded against the following pat | ent application or patent: | |
| Patent Cooperation Treaty (PCT): | | |
| Enter PCT application number only if a U.S. Application Nur | | |
| Name and address of party to whom correspondence conc | erning document should be mailed: | |
| Name: Philip Y. Dahl, Phone Number: 651-737-4029 | | |
| Office of Intellectual Property Counsel | | |
| 3M Innovative Properties Company | | |
| P.O. Box 33427 | | |
| St. Paul, Minnesota 55133-3427 | | |
| Number of Properties: | number of properties involved 40.00 E | |
| Fee Amount: | 40.00 E | |
| | operties Listed (37 CFR 3.41) X \$40.00 | |
| | | |
| Method of Payment: ⊠ Charge to | Deposit Account No. $13-3723 = 40.00 | |
| Authorization to charge add | | |
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| 1999 JSHABAZZ 00000109 133723 09430568) | | |
| 581 40.00 CH | | |
| Statement and signature | | |
| To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a | | |
| true copy of the original document. Charges to deposit account are authorized, as indicated herein. | | |
| Philip Y. Dahl | October 29, 1999 | |
| Printed Name of Attorney Signature | Date | |
| Pages: | | |
| Total number of pages of the attached conveyance d | ocument including any attachments 2 | |

Mail documents to be recorded with required cover sheet information to: Commissioner of Patents & Trademarks, Box Assignments, Washington, D.C. 20231

q/\simpco forms and samples\assignment recordation cover sheet revised 4-28-99 doc 4/28/99

PATENT

REEL: 010368 FRAME: 0037

ASSIGNMENT

Whereas we, the below named inventors, with residences and citizenships as indicated below; have made an invention in

MICROSTRUCTURED FLOW FIELDS

and have contemporaneously executed an application for Letters Patent of the United States of America based thereon;

Now, therefore, for good and valuable consideration, receipt of which is acknowledged, we have individually and jointly agreed to assign and transfer and do hereby assign and transfer unto the 3M INNOVATIVE PROPERTIES COMPANY, a wholly owned subsidiary of MINNESOTA MINING AND MANUFACTURING COMPANY, and a corporation of Delaware, having its principal office at Saint Paul, Minnesota, its successors and assigns, the entire right, title, and interest in and to the said invention and application, and in and to any division or continuation (in whole or in part) of said application, and in and to any and all improvements in the said invention made by us or any of us or made jointly with others (provided any such improvement is made during, or within one year after the termination of, the employment by Minnesota Mining and Manufacturing Company and any of its existing or future subsidiaries of whichever of us, solely or jointly with one or more others, has made the same), and in and to any and all Letters Patent, reexaminations, reissues, or extensions thereof, of the United States of America and countries foreign thereto (including the right to apply for Letters Patent, Utility Models, or Inventors' Certificates in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), which have been or may be granted thereon or on any divisional, continuation (in whole or in part), renewal, reexamination, reissue, or other or further application based in whole or in part upon the said invention or improvements thereon, to be held and enjoyed as fully and exclusively as they would have been by us or any of us had this assignment and transfer not been made,

We do further agree for ourselves and for our heirs, executors, and administrators, to execute and deliver without further consideration any further applications, assignments, and documents, and to perform such other acts as we lawfully may, that may be deemed necessary by the said Company, its successors, assigns, and nominees, fully to secure its right, title, and interest as aforesaid and to obtain or maintain Letters Patent, Utility Models, or Inventors' Certificates in any and all countries;

And we do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of the said applications, to the said 3M Innovative Properties Company, as the assignee of the entire right, title, and interest therein.

Krzysztof A. Lewinski Residence: Oakdale, Minnesota, U.S.A. Citizenship: Poland STATE OF MINNESOTA)) ss. **COUNTY OF RAMSEY** On this 29th day of October 1999 before me personally appeared the above-named Krzysztof A. Lewinski, personally known by me, and known by me to be the person described in and who executed the foregoing instrument, and who acknowledged that said person executed the same as said person's free act and deed, on the day and year aforesaid. Phylling, Boettcher Notary Public (Seal)

PHYLLIS J. BOETTCHER NOTARY PUBLIC - MINNESOTA WASHINGTON COUNT

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| | I mynn I wow I for | |
| | Residence: Lake Elmo, Minnesota, U.S.A. | |
| | Citizenship: United States of America | |
| STATE OF MINNESOTA) ss. | Chizonamp. Chica dates of Time for | |
| COUNTY OF RAMSEY | | |
| On this 34^{+} day | of CCtob(2 1999 be | fore me personally |
| appeared the above-named Raymond Paperson described in and who executed | atrick Johnston, personally known by me, and kn I the foregoing instrument, and who acknowledg act and deed, on the day and year aforesaid. | own by me to be the |
| | | -1 |
| (Seal) | Phyllin J. Boette | Notary Public |
| •••••• | | Notary Public |
| PHYLLIS J. BOETTCHER | - | |
| WASHINGTON COUNTY My Comm. Expires Jan. 31, 2000 | Thomas Kenther | |
| ************************************** | Thomas K Herdtle 7k | |
| · | Residence: Inver Grove Heights, Minnesota, | |
| | Citizenship: Inited States of America | 7 Fe |
| STATE OF MINNESOTA) ss. | | |
| COUNTY OF RAMSEY), | | |
| On this 29th day | of October 1999, be | fore me personally |
| appeared the above-named Thomas K Herdtle, personally known by me, and known by me to be the person described in and who executed the foregoing instrument, and who acknowledged that said person executed the same as said person's free act and deed, on the day and year aforesaid. | | |
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| | eed, on the day and year aforesaid. | said person executed |
| | eed, on the day and year aforesaid. | said person executed |
| the same as said person's free act and de | | said person executed |
| (Seal) PHYLLIS J. BOETTCHER NOTARY PUBLIC - MINNESOTA | eed, on the day and year aforesaid. | said person executed |
| (Seal) | eed, on the day and year aforesaid. The Phyllis J., Boettche | said person executed |
| (Seal) PHYLLIS J. BOETTCHER NOTARY PUBLIC - MINNESOTA | eed, on the day and year aforesaid. The Phyllis J. Boettche Ward Watalo. | said person executed |
| (Seal) PHYLLIS J. BOETTCHER NOTARY PUBLIC - MINNESOTA | Phyllis J. Boettche Cauch Guid Adrian Ylitalo | said person executed |
| (Seal) PHYLLIS J. BOETTCHER NOTARY PUBLIC - MINNESOTA | Phyllis J., Boettche David Adrian Ylitalo | said person executed |
| (Seal) PHYLLIS J. BOETTCHER NOTARY PUBLIC - MINNESOTA WASHINGTON COUNTY My Comm. Expires Jan. 31, 2000 STATE OF MINNESOTA | Phyllis J., Boettche Bovid Adrian Ylitalo Residence: Stillwater, Minnesota, U.S.A. | said person executed |
| (Seal) PHYLLIS J. BOETTCHER NOTARY PUBLIC - MINNESOTA WASHINGTON COUNTY My Comm. Expires Jan. 31, 2000 STATE OF MINNESOTA) ss. | Phyllia J., Boettche Phyllia J., Boettche David Adrian Ylitalo Residence: Stillwater, Minnesota, U.S.A. Citizenship: United States of America | Notary Public |
| (Seal) PHYLLIS J. BOETTCHER NOTARY PUBLIC - MINNESOTA WASHINGTON COUNTY My Comm. Expires Jan. 31, 2000 STATE OF MINNESOTA) SS. COUNTY OF RAMSEY On this | Phyllis J., Boettche Phyllis J., Boettche David Adrian Ylitalo Residence: Stillwater, Minnesota, U.S.A. Citizenship: United States of America | Notary Public |
| (Seal) PHYLLIS J. BOETTCHER NOTARY PUBLIC - MINNESOTA WASHINGTON COUNTY My Comm. Expires Jan. 31, 2000 STATE OF MINNESOTA) Ss. COUNTY OF RAMSEY On this 39 day appeared the above-named David Adv | Phyllis J., Boettche Phyllis J., Boettche David Adrian Ylitalo Residence: Stillwater, Minnesota, U.S.A. Citizenship: United States of America of October 1999, berian Ylitalo, personally known by me, and known | Notary Public efore me personally wn by me to be the |
| (Seal) PHYLLIS J. BOETTCHER NOTARY PUBLIC - MINNESOTA WASHINGTON COUNTY My Comm. Expires Jan. 31, 2000 STATE OF MINNESOTA On this | Phyllia J., Boettche Phyllia J., Boettche David Adrian Ylitalo Residence: Stillwater, Minnesota, U.S.A. Citizenship: United States of America of October 1999, berian Ylitalo, personally known by me, and knowled the foregoing instrument, and who acknowled | Notary Public efore me personally wn by me to be the |
| (Seal) PHYLLIS J. BOETTCHER NOTARY PUBLIC - MINNESOTA WASHINGTON COUNTY My Comm. Expires Jan. 31, 2000 STATE OF MINNESOTA On this | Phyllis J., Boettche Phyllis J., Boettche David Adrian Ylitalo Residence: Stillwater, Minnesota, U.S.A. Citizenship: United States of America of October 1999, berian Ylitalo, personally known by me, and known | Notary Public efore me personally wn by me to be the |
| (Seal) PHYLLIS J. BOETTCHER NOTARY PUBLIC - MINNESOTA WASHINGTON COUNTY My Comm. Expires Jan. 31, 2000 STATE OF MINNESOTA On this | Phyllis J., Boettche Phyllis J., Boettche David Adrian Ylitalo Residence: Stillwater, Minnesota, U.S.A. Citizenship: United States of America of October 1999 be rian Ylitalo, personally known by me, and known the foregoing instrument, and who acknowled act and deed, on the day and year aforesaid. | Notary Public Person executed Notary Public |
| (Seal) PHYLLIS J. BOETTCHER NOTARY PUBLIC - MINNESOTA WASHINGTON COUNTY My Comm. Expires Jan. 31, 2000 STATE OF MINNESOTA On this 3 9 day appeared the above-named David Adiperson described in and who executed executed the same as said person's free | Phyllis J., Boettche Phyllis J., Boettche David Adrian Ylitalo Residence: Stillwater, Minnesota, U.S.A. Citizenship: United States of America of October 1999 be rian Ylitalo, personally known by me, and known the foregoing instrument, and who acknowled act and deed, on the day and year aforesaid. | Notary Public Person executed Notary Public |
| (Seal) PHYLLIS J. BOETTCHER NOTARY PUBLIC - MINNESOTA WASHINGTON COUNTY My Comm. Expires Jan. 31, 2000 STATE OF MINNESOTA On this | Phyllia J., Boettche Phyllia J., Boettche David Adrian Ylitalo Residence: Stillwater, Minnesota, U.S.A. Citizenship: United States of America of October 1999, berian Ylitalo, personally known by me, and knowled the foregoing instrument, and who acknowled | Notary Public Person executed Notary Public |

RECORDED: 10/29/1999

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