PATENT AS	07-23-1998	Docket No. 53709USA5C ON COVER SHEET	and the second second
To the Honorable Commissioner		###	-
Please record the attached origin		##	
1. Name of conveying party(ies,	100771342	rame and address of receiving party(ies)	
James F. Brennan, III and Dwayne L. LaBrake		nnesota Mining and Manufacturing Compa D. Box 33427	ıny
Additional names of conveying par Yes No		Paul, Minnesota 55133-3427	
3. Nature of conveyance: Assignment of the Assig	-	570	\$6/s
Execution Date(s): July 6, 1998	National Place National Contract Contra		Ř
This document is to be record	ied against the following	natent application or patent:	
Name and address of party to whom correspondent should be mailed:	ce concerning document 6.	Total number of applications	
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5. Name and address of party to whom correspondent should be mailed: Néstor F. Ho Minnesota Mining and Manufactur Office of Intellectual Property Cou P.O. Box 33427 St. Paul, Minnesota 55133-3427	ing Company nsel	Total number of applications patents involved: 1 x \$40.00	rge
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5. Name and address of party to whom correspondent should be mailed: Néstor F. Ho Minnesota Mining and Manufactur Office of Intellectual Property Cou P.O. Box 33427 St. Paul, Minnesota 55133-3427	ing Company nsel	Total number of applications I patents involved: 1 x \$40.00 40. Total fee (37 CFR 3.41) \$40 . Please charge Deposit Account No. 13-3723	rge

Form Rec-Asn.doc Rev. 6/11/96

Néstor F. Ho

Printed Name of Attorney

Mail documents to be recorded with required cover sheet information to.
Commissioner of Patents & Trademarks, Box Assignments, Washington, D.C., 2023)

Total number of pages including cover sheet, attachments, and document:

Signature

July 6, 1998

3

Date

ASSIGNMENT

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

METHOD FOR WRITING ARBITRARY INDEX PERTURBATIONS ON A WAVEGUIDE

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 MINNESOTA MINING AND MANUFACTURING COMPANY (sometimes designated as the Minnesota Mining & Manufacturing Company), 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 the said Company 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 Minnesota Mining and Manufacturing Company, as the assignee of the entire right, title, and interest therein.

In witness whereof, we have hereunto signed our names on the days and years set forth below.

James F. Brennan, III
Residence: Austin, Texas USA
Citizenship: United States of America

STATE OF TEXAS

COUNTY OF TRAVIS)

DENYSE DAUPHINAIS

(Grant) MISSION EXPIRES

May 3, 2001

Notary Public

Docket No. 53709USA5C Dwayne L. LaBrake Residence: Austin, Texas USA Citizenship: United States of America 19 98 before me personally _ day of ____ appeared the above-named Dwayne L. LaBrake personally known by me, and known by me to be the person described in and who executed the foregoing instrument, and who acknowledged that he executed the same as his free act and deed, on the day and year aforesaid.

(SDENYSE DAUPHINAIS MY COMMISSION EXPIRES May 3, 2001

STATE OF TEXAS

COUNTY OF TRAVIS

On this

) SS.

PATENT REEL: 9319 FRAME: 0452