PATENT ASSIGNMENT RECO

To the Honorable Commissioner of Patents and Trademar

03-31-1999

12	Please record the attached original of	document or copy t	her 1000	106175		
3 12 2			2. Name and address Minnesota Mining P.O. Box 33427	d address of receiving party(ies) Mining and Manufacturing Company 3427 innesota 55133-3427		
	Application number or patent number: This document is being filed with a new patent application on This document is to be recorded against the following patent application or patent: 09/221,007 Name and address of party to whom correspondence concerning ocument should be mailed: A. Sanders Gwin, Jr. Minnesota Mining and Manufacturing Company Office of Intellectual Property Counsel			221,007		
i	P.O. Box 33427 St. Paul, Minnesota 55133-3427	1301	x \$40	.00	\$40.00	
03/31/1999 JSHABAZZ 00000010 333723 09221007 01 FC:581 40.00 CH		DO NOT VO	7. Total fee (37 CFR 3.41) \$40.00. Please charge it to Deposit Account No. 13-3723			
	DO NOT USE THIS SPACE					
	Statement and signature. So the best of my knowledge and belief, the foregoing information is true and correct and any attached cops a true copy of the original document. H. Sanders Gwin, Jr.					
-	Printed Name of Attorney S Total number of page	Signature es including cover s	sheet, attachments, a	Date nd document:	5	

REEL: 9847 FRAME: 0550

ASSIGNMENT

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

Curable Slurry for Forming Ceramic Microstructures on a Substrate Using a Mold 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.

 $\textbf{PATENT}_{d\text{-}i/020998}$

REEL: 9847 FRAME: 0551

	1	Docket No. 54597USA7A
	Luft h	0/ 3/16/99
	Kyang H. Moh	
	Residence: Woodbury, Minneson	
GTATE OF MADIFICATA	Citizenship: United States of Ame	erica
STATE OF MINNESOTA) ss.		
COUNTY OF RAMSEY)		
	of March	$_{1922}$, before me personally
appeared the above-named Kyung H.	. Moh, personally known by me, and	I known by me to be the person
described in and who executed the for		ledged that he executed the same
as his free act and deed, on the day an	d year aforesaid.	
		1 11
	Lithling Mil	handar a
(Seal)	AMERICAN TIVE Z	ancurg
KATHI EFN M. SANDVIG ≹		Notary Public
NOTARY PUBLIC - MINNESOTA		
My Comm. Expires Jan. 31, 2000	Manager Plan	an ////anX
********	Thomas Edward Wood	ora work
	Residence: Stillwater, Minnesota	a. U.S.A.
	Citizenship: United States of Ame	
STATE OF MINNESOTA)		į
COUNTY OF RAMSEY),		•
	of March	1999, before me personally
appeared the above-named Thomas I		
person described in and who execute	d the foregoing instrument, and who	
the same as his free act and deed, on t	he day and year aforesaid.	
	1/11	1
	Lathlana MI	
(Seal)	Address I'v. 1	Notary Public
NOTARY PUBLIC - MINNESOTA		Notary Public
WASHINGTON COUNTY \$ My Comm. Expires Jan. 31, 2000\$		
······································	D. Ichi	3/12/99
	Raymond C. Chiu	
	Residence: Woodbury, Minneso	ta, U.S.A.
	Citizenship: United States of Ame	erica
STATE OF MINNESOTA) ss.		
COUNTY OF RAMSEY)		
On this 17th day	y of March	19 99 before me personally
appeared the above-named Raymond	C. Chiu, personally known by me, an	nd known by me to be the person
described in and who executed the for		rledged that he executed the same
as his free act and deed, on the day an	id year aforesaid.	
GERI BROOKS		
NOTARY PUBLIC - MINNESOTA WASHINGTON COUNTY	(Ser. Bro	
Commission Expires Jan. 31, 2000		Notary Public

Notary Public

(Seal)



Kathleen M. Sanchiza

Docket No. 54597USA7A

Paul Edward Humpal

Residence: Stillwater, Minnesota, U.S.A. Citizenship: United States of America

STATE OF MINNESOTA)

) ss.

COUNTY OF RAMSEY

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.



Hage Schneider
Notary Public

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PATENT REEL: 9847 FRAME: 0554