Mall Stop: Assignment Recordation Services Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450		RECORDATION FORM COVER SHEET PATENTS ONLY		U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office storney Docket No. 141950		
	ase record the attached document.					
1.	A. Name of conveying parties: Olivier CITTI Julien FOURCADE Michel GAUBIL Charles Nicholas MC G Michael J. SEABORNE B. Additional name(s) of conveying	,	SAIN REC EUR LES N D'A	nd address of receiving party: T-GOBAIN CENTRE DE CHERCHES ET D'ETUDES ROPEEN MIROIRS 18 AVENUE LSACE, RBEVOIE, FRANCE		
3.	A. Nature of conveyance: Assignment Security Agreement Other	Merger Change of Name	B. Addition	nal name(s) & address(es) attached? □Yes		
	B. Execution Date: <u>all: July 20</u>	, 2009				
4.	A. Patent Application No. 12/51	<u>9,630</u>	B. Patent N	vio.(s)		
		Additional numbers attack	hed? 🔲 Yes 🗵 No			
	C. Title of Application: <u>DOP</u>	ED SINTERED PROD	OUCT BASED C	ON ZIRCON AND ZIRCONIA		
5.	Name and address of party to whom concerning document should be mai	correspondence led:	6. Total number	of applications and patents involved: 1		
	Name: William P. Berridge			parge Deposit Account No. 15-0461 the 37 CFR 3.41) in the amount of \$40.00.		
	Address: OLIFF & BERRIDGE, 1 P.O. Box 320850 Alexandria, VA 22 Phone Number: 703-83 Fax Number: 703-836	.320-4850 :6-6400		crpayment or charge any underpayment to int number 15-0461.		
9.	Statement and signature, To the best of my knowledge and be original document. William P. Berridge Registration N Matthew C. Barthalow Registration	0.30,024		t and any attached copy is a true copy of the September 28, 2009		

PATENT REEL: 023297 FRAME: 0207

ASSIGNMENT

		(1)	Olivier CITTI	(5)	Michael J. SEABORNE		
(1-8)	Insert	(2)	Julien FOURCADE	(6)			
	Name(s) of Inventor(s)	(3)	Michel GAUBIL	(7)			
		(4)	Charles Nicholas MC GARRY	(\$)			
		to eac	h of the undersigned, each undersig	onsideration of the sum of one dollar (\$1.00) and other good and valuable consideration paid the undersigned, each undersigned agrees to assign, and hereby does assign, transfer and set			
(9)	Insert Name of Assignee	(9)	SAINT-GOBAIN CENTRE DE F	RECHERCHE	S ET D'ETUDES EUROPEEN		
(10)	Insert Address of Assignee	(10)					
	-	(hercii the en invent	nafter designated as the Assignce) an tire right, title and interest for the Un- tion, and in all applications for patent uation, international, confirmation, s tions, reissues and reexamination cen	er designated as the Assignee) and Assignee's heirs, successors, assigns and legal representative right, title and interest for the United States of America as defined in 35 U.S.C. §100, in the and in all applications for patent including any and all provisional, non-provisional, divisionation, international, confirmation, substitute and reissue application(s), and all I etters Patent, s, reissues and reexamination certificates that may be granted on the invention known as			
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	Such as Title, Case Number, or Foreign Application Number	for wi	mey Docket No. 141950 sich the undersigned has (have) exe	the undersigned has (have) executed an application for patent in the United States of America			
(12)	Insert Date of	011 044	· ·				
(12)	Signing of Application	(12)	onJULY 20, 2009	· · · · ·	<u> </u>		
(13)	Alternetive	(13)	U.S. application Serial Number	12/519,630			
	Identification for filed applications	filed	September 28,	2009			
any applicate any app the Assi claims of reexami Patents full righ and agre identifie	ions and patents as the Assign 2) Each undersigned agrees lication or continuation or divignee in every way possible in 3) Each undersigned agrees or provisions of the Internation 4) Each undersigned agrees ination a grant of a valid Unit 5) Each undersigned author of the United States resulting at to convey the entire interest ces that this assignment is bin 6) Each undersigned hereby cation that may be necessary of the of this document.	to executision the obtainst to execute to execute to execute to perfect State from samples of the execute to execute the execute to execute the execut	deem necessary, ute all papers necessary in connecti- tereof, or any patent or reissue appli- ng evidence and going forward with ute all papers and documents and p- vention for Protection of Industrial form all affirmative acts which may be separent to the Assignee. I requests the Commissioner of the bid application(s) to the said Assign- assigned, and that he has not execut him and his heirs, successors, assign- the firm of Oliff & Berringe, Pl bide in order to comply with the rule	on with any in ication based in such interfer from any act Property or since the necessary to U.S. Patent and e.e. as Assigned to the power to the Unite second to the Unite second to the Unite second and the Unite second to the Unite second second to the Unite second second to the Unite second second second to the Unite second to the Unite second sec	t which may be necessary in connect milar agreements. o obtain, maintain or confirm by rei- ad Trademark Office to issue any an- tie of the entire interest, and ecvenan- tot execute, any agreements in confli- tepresentatives. o insert on this assignment any furth- d States Patent and Trademark Office	oncerning operate with stion with ssue or dall Letters its that he has ict herewith,	
	In witness whereof, execut	ed by ft	e undersigned on the date(s) opp	osite the undo	ersigned name(s).		
Date	Duly 25th 200	<u> </u>	Inventor Signature		D.C1771	_ (SEAL)	
Date	Joty 23" Zee	<u> 7_</u>	Inventor Signature			_ (SEAL)	
Date	July 20th 200	3 5	Inventor Signature	<u> </u>	7	_ (SEAL)	
Date	<u> </u>		Inventor Signature		/	_ (\$EAL)	
Date			Inventor Signature			_ (SEAL)	
Date			Inventor Signature			_ (SEAL)	
Date			Inventor Signature			_ (SEAL)	
Date			Inventor Signature			(SEAL)	
	This assignment should prefunct it should be signed before	erably b re at lea	st two witnesses who also sign here		U.S.A. (b) a U.S. Consul if outside	the U.S.A. If	
Date		<u>y</u> ~~		<u>? AVEOIK</u>			
Date	- Justy 200	<u> </u>	∑³ Witness(<u> Mari</u>	- VIII		

PATENT REEL: 023297 FRAME: 0208 LSA-

ASSIGNMENT

(1.1) Insert Name (1.1) Insert Date of Spiritual Process and recursions and experimental policy of the surface			(1)	Olíviှ ရှ CITTl	(5) Michael J. SEABORNE		
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The consideration of the som of one dollar (\$1.00) and other good and valuable co-sideration paid to each of the undersigned, each undersigned agrees to session, and foorby does assign, manufor and set over to Assignee (10) Issert Name of Assignee (10) Issert Address of Assignee (11) Interest of Interest for the United States of America as defined in 32 U.S.C. (100, in the invention, and all all applications for place influenting any and all previousles, one-provisional, orderination, understand confidentation, and all texture Paten, and a publication of the invention is sown as a constant of the Interest of the United States of America on even data benevith or Interest of the United States of America on even data benevith or Interest of the United States of America on even data benevith or Interest of Interes			(3)	Michel GAUBIL	ෆ		
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Assignee (10) Issert Address of (10) Les Miroirs 18 ayenne (Aplace, 22400 Coorbevoie, France Assignee (10) Les Miroirs 18 ayenne (Aplace, 22400 Coorbevoie, France Charles of the China of			to cacl	i of the undersigned, each undersi			
(10) Les Minirs 18 avenue ("Allace, 92400 Coorbevoic, France (hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the switer right, tile and increat for the United States of America as defined in 30 U.S.C. 1100, in the continuation, inclinerational, confirmational, and all table of invention is nown as a string. Case Number, or Foreign Application Number (11) DOPED SINTERED PRODUCT BASED ON ZIRCON AND ZIRCONIA (Atterney Docket No. 141550 (Application or cover date herewith or September 28, 2009 (12) Alternative (13) U.S. application Serial Number 12510,600 (14) Alternative (15) U.S. application Serial Number 12510,600 (16) Alternative (17) Alternative (18) U.S. application Serial Number 12510,600 (19) Alternative (19) Alternative (19) Alternative (10) Alternative (10) Alternative (11) Internative (12) U.S. applications Serial Number 12510,600 (12) Alternative (13) U.S. applications of file invention, and any patent(s) invaling thereon, and also to execute separate assignments in connection with such particular assignments in connection with such particular assignments in connection with such interference. (2) Each undersigned agrees to execute all papers and documents and partorns are serial to invention, and are connection with the Assignment as foreigned agrees to execute all papers and documents and partorns are serial resignations of the invention, and are pasted assignment and partorns are serial resignations of the invention and the connection with alternative assignment in conn	(9)		(9)	SAINT-GOBAIN CENTRE DE	RECHERCHES ET D'ETUDES EUROPEEN		
(thereinafter designated as the Assignee's heits, successors, assigns and legal representatives, the emiter right, tible and interest for the United States of America as defined in 35 U.S.C. † 100, in the invention, and in all applications for paster including any and all provisional, conventional, continuation, international, continuation, substitute and release applications), and all Lectors Patens, extensions, resistence and creations for paster including any and all provisional, conventions for any assistance of the continuation of the states and all the states as extensions, resistence and creations, substitute and release applications), and all Lectors Patens, extensions, resistence and research and the states and the states are stated in the states and all Lectors Patens, extensions, resistence and resistance and the states and the states and the states are states and the states and the states are states and the states and the states are states and the states	(10)	Insert Address of	• •	· •			
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for which the undersigned has (have) executed an application for patent in the United States of America on even date herewith or (12) Insert Date of Signing of (12) on July 20, 2009 Application (13) Alternative (13) U.S. application Scrial Number 12/519,630 Identification for filed September 28, 2009 1) Each undersigned agrees to except all papers necessary in connection with any application and any continuing, divisional or reissue applications for the invention, and any patent(s) issuing thereon, and also to except a suppression for the invention, and any patent(s) issuing thereon, and also to except a suppression or continuation or division thereof, or any patent or reissue application based thereon, for the invention, and any patent(s) issuing thereon, and also to except a suppression or continuation or division thereof, or any patent or reissue application based thereon, for the invention, and any patent(s) issuing flowered with the Assignet in very way possible in obtaining evidence and going flowered with such interference. 3) Each undersigned agrees to except all papers and documents and perform any set which may be necessary in connection with such interference. 4) Each undersigned agrees to except all papers and documents and perform any set which may be necessary in connection with claims or provisions of the Intermetional Convention of Industrial Property or similar agreements. 4) Each undersigned agrees to except all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reextraination a great of a valid United States patent to the Assignet. 5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office to issue any and all Letters Patents of the United States resulting from asid application(s) to be said Assignee, as Assignee of the entire interest and coverents like the has not excepted, and will not exceute, any agreements in conflict berswith, and agrees that this assignment is binding on him and his heirs, successors,	(11)	Identification such as Title, Case Number, or Foreign			BASED ON ZIRCON AND ZIRCONIA		
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Date Inventor Signature (SEAL) This assignment should preferably be signed before: (a) a Notary Public if within the U.S.A. (b) a U.S. Consult if outside the U.S.A. If neither, then it should be signed before at least two witnesses who also sign here: Date 20 Joly 2005 Witness R AMEDIK(AM)	the Ass claims of reexami Patents full righ and agre identific	ignce in every way possible it 3) Each undersigned agree or provisions of the Internation 4) Each undersigned agree ination a grant of a valid Unit 5) Each undersigned author of the United States resulting at the convey the entire interest each this assignment is bit 6) Each undersigned herebeation that may be necessary	n obtaining to executional Converse to perform ted States erizes and grown said therein and grants till y grants t	ig evidence and going forward wit te all papers and documents and p ention for Protection of Industrial m all affirmative acts which may patent to the Assignee. requests the Commissioner of the d application(s) to the said Assign ssigned, and that he has not execu- hirn and his heirs, successors, assi- te firm of CLIFF & BERRIDGE, PI	h such interference. erform any act which may be necessary in come Property or similar agreements. be necessary to obtain, maintain or confirm by: U.S. Patent and Trademark Office to issue any ee, as Assignce of the entire interest, and coven ted, and will not execute, any agreements in cor gas and legal representatives. C the power to insert on this assignment any fire	nection with reisauc or and all Letters ands that he has afflict herewith,	
Date		In witness whereof, execu-	ted by the	e undersigned on the date(s) opp	osite the undersigned name(s).		
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Date Inventor Signature Charles Millians (SEAL) Date Inventor Signature (SEAL) This assignment should preferably be signed before: (a) a Notary Public if within the U.S.A. (b) a U.S. Consul if outside the U.S.A. If neither, then it should be signed before at least two witnesses who also sign here: Date 20 July 2009 Witness R. AMEDIK(AM) Amelijable Witness R. AMEDIK(AM) Amelijable Date 20 July 2009 Witness R. AMEDIK(AM) Date 20 July 2009 Witness R. AMEDIK(AM) Amelijable Date	Date			Inventor Signature		(SEAL)	
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	neither,			signed before: (a) a Notary Public	if within the U.S.A. (b) a U.S. Consul if outsi:		
Date 20th TUNY 8009 Witness Q MARCHAN CA	Date		<u> </u>	. Witness <u>R</u>	AVEDIKIAN A THE		
	Date	20th of tury 9	200 5	Witness	MARCHAN CA		

PATENT REEL: 023297 FRAME: 0209

ASSIGNMENT

		(1)	Olivier CITTI	(5)	Michael I. SEABORNE	<u> </u>	
(1-8)	Insert	(2)	Julien POURCADE	(6)			
·	Name(s) of Inventor(s)	(3)	Michel GAUBIL	(7)			
		(4)	Charles Nicholas MC GARRY	(8)			
		(o cac	In consideration of the sum of on h of the undersigned, each unders	e dollar (S1.00) igned agrees to	and other good and valua assign, and hereby does a	ble consideration paid ssign, transfer and set	
(9)	Insert Name of Assignee	(9)	SAINT-GOBAIN CENTRE DE	RECHERCHE	S ET D'ETUDÉS ÉÚRÓP	PEEN	
(10)	Insert Address of Assignee		(10) Les Miroirs 18 avenue d'Alsace, 92400 Courbevoie, France				
		the entinyent continuextens	(hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100, in the invention, and in all applications for patent including any and all provisional, non-provisional, divisional, continuation, international, confirmation, substitute and reissue application(s), and all I etters Patent, extensions, reissues and reexamination certificates that may be granted on the invention known as				
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	such as Title, Case Number, or Foreign Application Number	for wi	mey Docket No. 141950	••••	cation for patent in the U		
an man	V	on eve	en date herewith or				
(12)	Insert Date of Signing of Application	(12)	onJuly 20, 20	<u>09</u>			
(13)	Alternative	(13)	U.S. application Serial Number	12/519,630			
	Identification for filed applications	filed	September	28, 2009			
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neither	This assignment should pro then it should be signed bef	eferably l fore at les	re signed before: (a) a Notary Pub sr two witnesses who also sign he	lic if within the re:	U.S.A. (b) a U.S. Consul	if outside the U.S.A. If	
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Date	20th of July 2009	<u> </u>	Witness _	Richard	AVENIKIAN	1.11.	
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