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To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents on hand thereof.  1. Name of conveying party(ies)  Atsuo KONDO, Jungo KONDO, Yoshinari KOZUKA and Soichiro MATSUZAWA  Additional name(s) of conveying parties attached ✓ No  3. Nature of Conveyance: ✓ Assignment Merger Security Agreement Change of Name Other  Execution Date November 12,2001						
Atsuo KONDO, Jungo KONDO, Yoshinari KOZUKA and Soichiro MATSUZAWA  Additional name(s) of conveying parties attached ✓ No  3. Nature of Conveyance: ✓ Assignment Merger Security Agreement Change of Name Other  Execution Date November 12,2001						
Yoshinari KOZUKA and Soichiro MATSUZAWA  Additional name(s) of conveying parties attached ✓ No  3. Nature of Conveyance:  ✓ Assignment Merger Security Agreement Change of Name Other  Execution Date November 12,2001						
Additional name(s) of conveying parties attached ✓ No  Additional name(s) of conveying parties attached ✓ No  Nagoya, Aichi-Prefecture 467-8530  Japan  3. Nature of Conveyance:  ✓ Assignment Merger Security Agreement Change of Name Other  Execution Date November 12,2001						
✓ Assignment Merger Security Agreement Change of Name Other Additional name(s) attached? ✓ No  Execution Date November 12,2001						
Security Agreement Change of Name Additional name(s) attached? ✓ No Other  Execution Date November 12,2001						
4. Application number(s) or patent number(s)						
If this document is being filed together with a NEW APPLICATION, the execution date of this application is						
A. Patent Application No.(s)  B. Patent No.(s)						
09/916,124 filed July 25, 2001						
Additional Numbers attached? Yes <u>\rightarrow</u> No						
<ul> <li>Name and address of party to whom correspondence concerning this document should be mailed:</li> <li>Total number of application and patents involved: 1</li> </ul>						
Name: Stephen P. Burr  Address: BURR & BROWN P.O. Box 7068 Syracuse, NY 13261-7068 Telephone: (315) 233-8300 Facsimile: (315) 233-8320  7. Total fee (37 CFR 3.41) \$40.00  Enclosed ✓ Authorized to charge any deficiency or credit any over payment to Deposit Account No. 50-1446.  8. Charge Deposit account						
DO NOT USE THIS SPACE						
9. 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.  December 3, 2001  Stephen P, Burr  Reg. No. 32,970						
Total Number of Pages Comprising Cover Sheet 3						
Mail documents to be recorded with required cover sheet information to:						
Commissioner of Patents and Trademarks Box Assignments Washington, D.C. 20231						

01/09/2002 MBERHE 00000084 09916124 04 FC:581 40.00 GP

## ASSIGNMENT

(1-8) Insert Name(s) of Inventor(s)	(1)	Atsuo KONDO	(5)			
	(2)	Jungo KONDO	(6)			
	(3)	Yoshinari KOZUKA	(7)			
	(4)	Soichiro MATSUZAWA	(8)			
	In consideration of the sum of dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the undersigned agree(s) to assign, and hereby does assign, transfer and set over to					
(9) Insert name of Assignee	(9)	NGK INSULATORS, LTD.				
(10) Insert address of Assignee	(10)	(10) 2-56, Suda-cho, Mizuho-Ku, Nagoya City,				
		Aichi Pref., Japan				
	(hereinafter designated as the Assignee) the entire right, title and interest for the United States, its territories, dependencies and possessions, in the invention, and all applications for patent and any Letters Patent which may be granted therefor, known as					
(11) Insert Identification of Invention, such as Title, Case	(11)	AN OPTICAL WAVEGUIDE ELEMENT				
Number or Foreign Application Number	(Case No.					
	for which the undersigned have executed an application for patent in the United States of America					
(12) Insert Date of Signing of Application	(12)	on				
(13) Alternative identification	(13)	U.S. Application(s) Serial Numb for filed application(s) filed	Der(s) 09/916,124 July 25, 2001			

- 1) The undersigned agree(s) to execute all papers necessary in connection with the application and any continuing or divisional applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.
- 2) The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation or division thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.
- 3) The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.
- 4) The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.

PATENT REEL: 12423 FRAME: 0722

- 5) The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application or any divisions or continuing applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed and will not execute, any agreement in conflict herewith.
- 6) The undersigned hereby grant(s) Stephen P. Burr, of BURR & BROWN the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office recordation of this document.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date	November 12, 2001	Signature	Atano Kondo	(SEAL)			
Date	November 12, 2001	Signature	Jungo KONDO	(SEAL)			
Date .	November 12, 2001	Signature	Yoshinari KOZUKA	(SEAL)			
Date .	November 12, 2001	Signature	Soichiro MATSUZAWA	(SEAL)			
Date _		Signature		_(SEAL)			
Date <sub>-</sub>		Signature		_(SEAL)			
Date <sub>-</sub>		Signature		_(SEAL)			
Date _	·	Signature		_(SEAL)			
This assignment should preferably be signed before: (a) a Notary Public if within the U.S.A. or (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_	November 12, 2001	Witness	Kayoko Sugjura	· · · · · · · · · · · · · · · · · · ·			
Date_	November 12, 2001	Witness	youter Konda				