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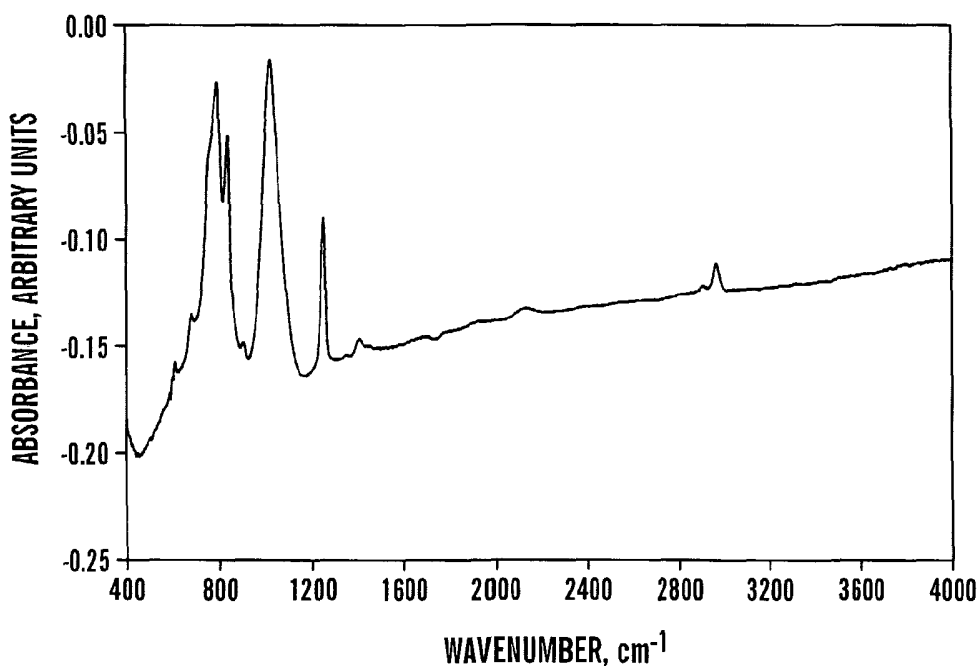
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[Continued on next page]

(54) Title: MATERIALS HAVING LOW DIELECTRIC CONSTANTS AND METHODS OF MAKING



(57) Abstract: The invention relates to a material including carbon, oxygen, silicon and hydrogen and having a dielectric constant of from about 2.1 to about 3.0 where an FTIR scan of the material includes at least two major peaks signifying Si-CH₃ bonding. The invention further relates to a material which has a variable dielectric constant through the thickness of the material. Another aspect of the invention is the method of making the material.



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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H01L23/58; H01L 21/469

US CL : 257/632; 438/788

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 257/632, 635, 763; 438/624,788; 427/255.6

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P --- Y, P	US 6,068,884 A (Rose et al.) 30 May 2000, Figures 3,4, Column 3, line 45 to column 4, line 52; column 10, lines 42-65.	1-15 ----- 32-36
X --- Y	US 5,302,420A (Nguyen et al.) 12 April 1994 (12.04.1994), column 1, lines 23-26 and lines 60-62, and figure.	38-41 ----- 32-36, 42
Y, E	US 6,383,955 B1 (Matsuki et al.) 07 May 2002 (07.02.2002), column 5, lines 47-49.	42



Further documents are listed in the continuation of Box C.



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"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
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