

Title (en)  
NOVEL CERAMIC FERROELECTRIC COMPOSITE MATERIAL - BSTO-MgO

Title (de)  
NEUER KERAMISCHER FERROELEKTRISCHER VERBUNDWERKSTOFF

Title (fr)  
NOUVEAU MATERIAU COMPOSITE CERAMIQUE FERROELECTRIQUE A BASE DE BSTO/MgO

Publication  
**EP 0705230 A4 19960717 (EN)**

Application  
**EP 94920023 A 19940524**

Priority  

- US 9405649 W 19940524
- US 7629193 A 19930609
- US 20744694 A 19940307

Abstract (en)  
[origin: WO9429236A1] A novel ceramic ferroelectric material having a low dielectric constant, extremely low loss and high tunability. The material is a composite comprising Barium Strontium Titanate (BSTO) and a ceramic material having a low dielectric constant. The preferred composite is represented by  $\text{Ba}_{1-x}\text{Sr}_x\text{TiO}_3\text{-MgO}$ , wherein x is greater than 0.00, but less than or equal to 0.75, and wherein the percent weight ratio between  $\text{Ba}_{1-x}\text{Sr}_x\text{TiO}_3$  and MgO ranges from approximately 99 % - 40 % and 1 % - 60 %, respectively. The novel materials possess superior electronic properties; and they may be employed in various antenna systems at both microwave and millimeter wave range frequencies.

IPC 1-7  
**C04B 35/46**

IPC 8 full level  
**C04B 35/46** (2006.01); **C04B 35/465** (2006.01); **H01Q 1/38** (2006.01)

CPC (source: EP)  
**C04B 35/465** (2013.01); **H01Q 1/38** (2013.01)

Citation (search report)  

- [AP] DATABASE WPI Week 9339, Derwent World Patents Index; AN 93-306543, XP002000889
- See references of WO 9429236A1

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