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Shindo et al.

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(54) **LAMINATE-TYPE DIELECTRIC DEVICE, A PRODUCTION METHOD AND AN ELECTRODE PASTE MATERIAL**

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* cited by examiner

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Nov. 22, 2001 (JP) 2001-358316

(51) **Int. Cl.⁷** **H01G 4/06**

(52) **U.S. Cl.** **361/311; 361/321.2; 361/321.5**

(58) **Field of Search** **361/311-313, 321.1-321.5, 361/322; 423/44 R**

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(57) **ABSTRACT**

A laminate type dielectric device is formed by alternately laminating dielectric ceramic layers and electrode layers and integrally baking the laminate product. The electrode layers are mainly made of an electrically conductive base metal material having greater standard Gibbs free energy for the formation of a metal oxide at a baking temperature than that of the ceramic material constituting the dielectric ceramic layers. Segregation of the materials including the electrically conductive base metal material does not occur at portions sandwiched between adjacent positive and negative electrode layers among the dielectric ceramic layers.

37 Claims, 22 Drawing Sheets

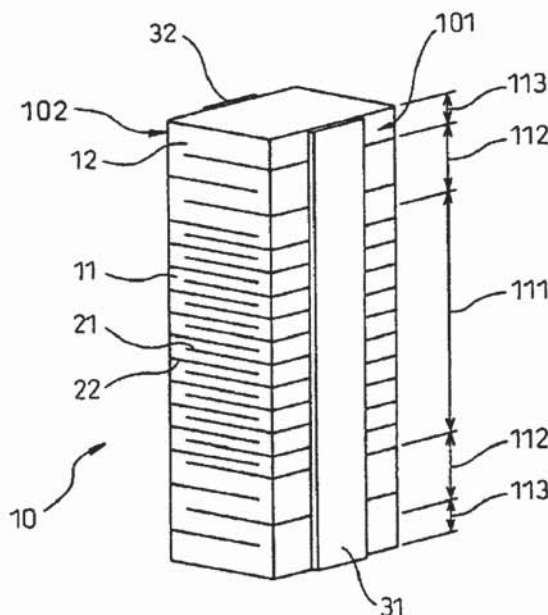


Fig.1

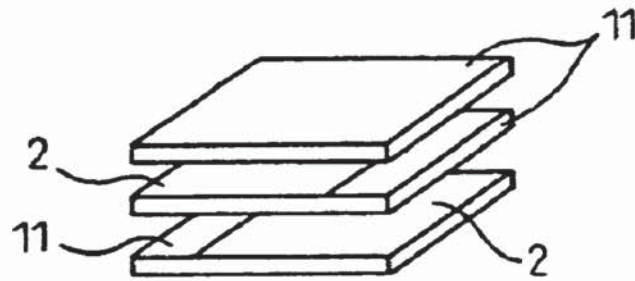


Fig.2

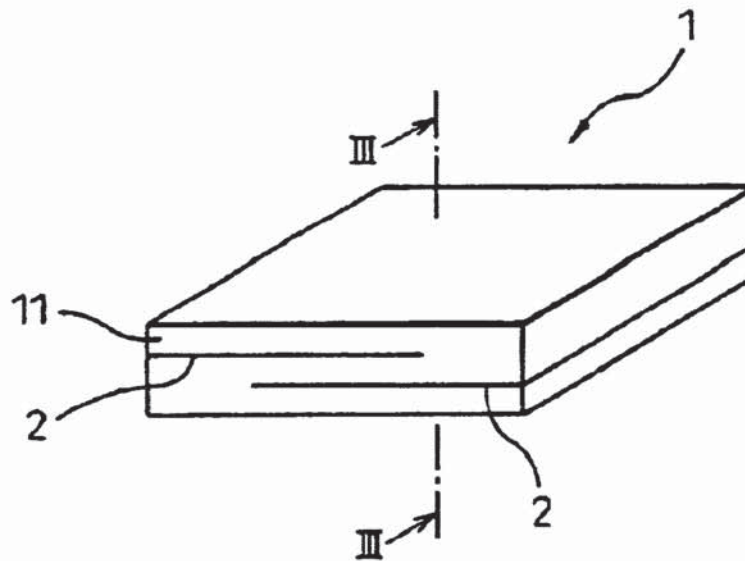
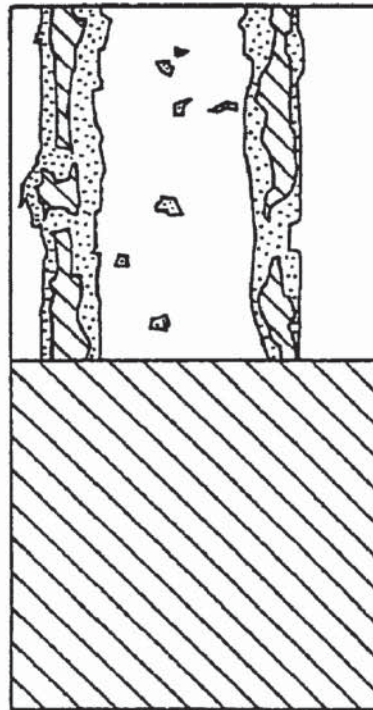


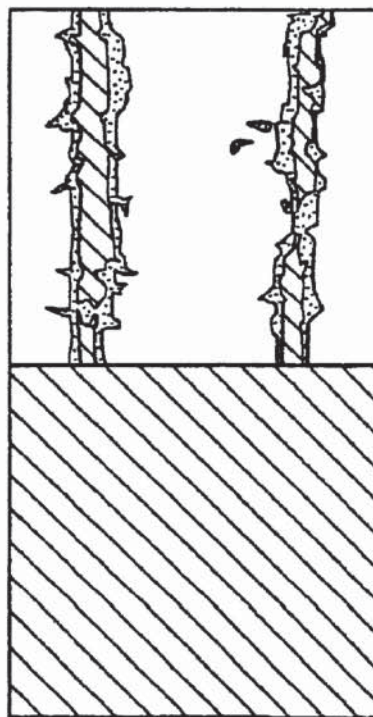
Fig.3



Cu DISTRIBUTION

O DISTRIBUTION

Fig.4



Cu DISTRIBUTION

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Fig.5

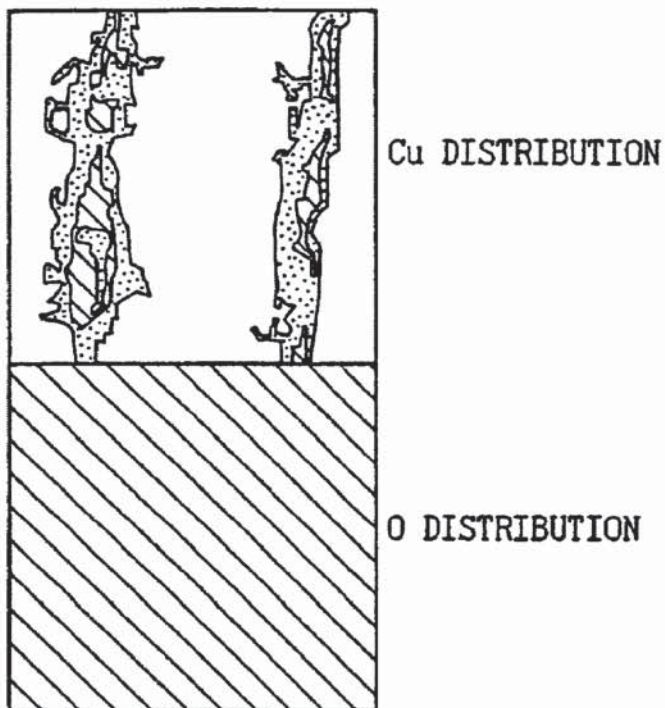


Fig.6

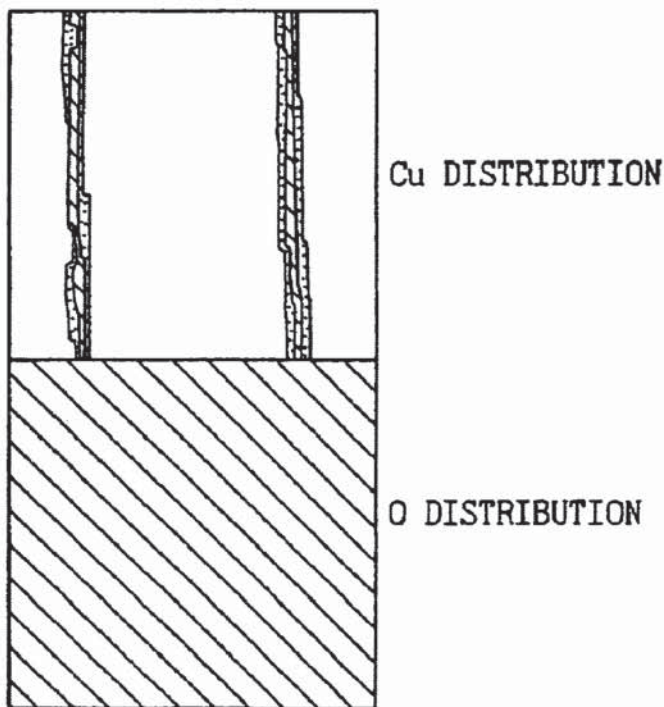


Fig.7

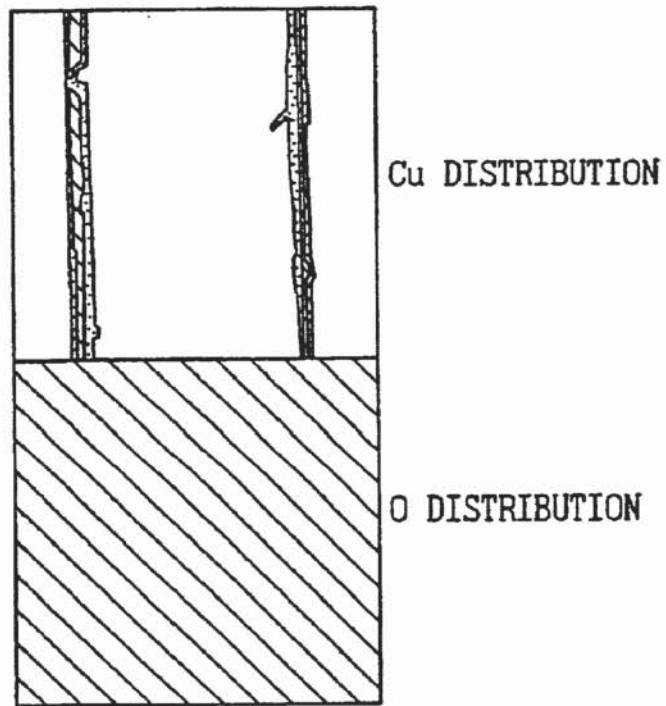
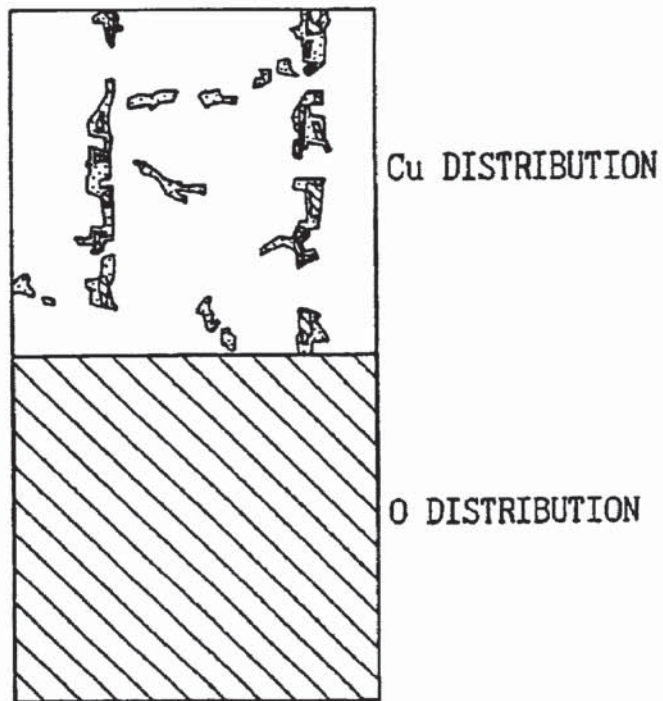


Fig.8



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