

Title (en)

High temperature thermistor containing rare earth metals

Title (de)

Seltener metallhaltiger Hochtemperatur-Thermistor

Title (fr)

Thermistance pour des températures élevées contenant des métaux du groupe de terres rares

Publication

**EP 0810611 A1 19971203 (DE)**

Application

**EP 97201494 A 19970516**

Priority

DE 19621934 A 19960531

Abstract (en)

A semiconductor ceramic, consisting of a rare earth metal oxide solid solution of composition (I), is new.  $(\text{Y}\text{aGdbSmcTbd})_2\text{O}_3$  (I), in which  $a = 0$  to  $0.995$ ,  $b = 0$  to  $0.995$ ,  $c = 0$  to  $0.995$ ,  $d = 0.01$  to  $0.995$  and  $a = \text{greater than } 0$ , when  $b = 0$ , or  $b = \text{greater than } 0$ , when  $a = 0$ . Preferably, the oxide solid solution has a cubic crystalline structure of C-M<sub>2</sub>O<sub>3</sub> type and may contain further doping elements selected from Nd, Eu, Gd, Dy, Ho, Er, Tm, Yb and Lu. Also claimed is a thermistor with a semiconductor ceramic of the above composition (I).

Abstract (de)

Ein Thermistor mit einer Halbleiterkeramik aus einem Mischkristalloxid der Seltenerdmetalle der Zusammensetzung  $[\text{Y}\text{aGdbSmcTbd}]\text{O}_3$  mit  $0 \leq a \leq 0,995$ ,  $0 \leq b \leq 0,995$ ,  $0 \leq c \leq 0,995$ ,  $0,01 \leq d \leq 0,995$  und  $a > 0$ , wenn  $b = 0$  oder,  $b > 0$ , wenn  $a = 0$  ist hochtemperaturstabil und kann bis zu Temperaturen von  $1100^\circ\text{C}$  verwendet werden. <IMAGE>

IPC 1-7

**H01C 7/04**

IPC 8 full level

**C04B 35/50** (2006.01); **H01C 7/04** (2006.01)

CPC (source: EP KR US)

**H01C 7/02** (2013.01 - KR); **H01C 7/043** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 0810611 A1 19971203**; **EP 0810611 B1 19991006**; CN 1118834 C 20030820; CN 1175778 A 19980311; DE 19621934 A1 19971204; DE 59700516 D1 19991111; JP H1087367 A 19980407; KR 100427900 B1 20040804; KR 970076910 A 19971212; TW 353233 B 19990221; US 5955937 A 19990921

DOCDB simple family (application)

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