

Title (en)

LARGE SINGLE DOMAIN 123 MATERIAL PRODUCED BY SEEDING WITH SINGLE CRYSTAL RARE EARTH BARIUM COPPER OXIDE SINGLE CRYSTALS

Title (de)

MATERIAL DES TYPIS 123 MIT GROSSER EINZELDOMAINE HERGESTELLT DURCH IMPFEN VON SELTENERDBARIUMKUPFEROXIDEINKRISTALLEN MIT EINKRISTALLEN

Title (fr)

MATERIAU 123 A VASTE MONODOMAINE OBTENU PAR ENSEMENCEMENT AVEC DES MONOCRISTAUX D'OXYDE DE TERRES RARES-BARYUM-CUIVRE

Publication

EP 0793850 A1 19970910 (EN)

Application

EP 96903372 A 19960111

Priority

- US 9600200 W 19960111
- US 37193395 A 19950112

Abstract (en)

[origin: WO9621934A1] A method of fabricating bulk YBa₂Cu₃O_x where compressed powder oxides and/or carbonates of Y and Ba and Cu present in mole ratios to form YBa₂Cu₃O_x are heated in the presence of an Nd_{1+x}Ba_{2-x}Cu₃O_y seed crystal to a temperature sufficient to form a liquid phase in the YBa₂Cu₃O_x while maintaining the seed crystal solid. The materials are slowly cooled to provide a YBa₂Cu₃O_x material having a predetermined number of domains between 1 and 5. Crack-free single domain materials can be formed using either plate shaped seed crystals or cube shaped seed crystals with a pedestal of preferential orientation material.

IPC 1-7

H01B 12/00; **C04B 35/505**; **C04B 35/622**; **C04B 35/653**

IPC 8 full level

C04B 35/45 (2006.01); **C04B 35/653** (2006.01); **C30B 9/00** (2006.01); **H10N 60/01** (2023.01)

CPC (source: EP)

C04B 35/4508 (2013.01); **C04B 35/653** (2013.01); **C30B 9/00** (2013.01); **C30B 29/225** (2013.01); **H10N 60/0268** (2023.02)

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