

Title (en)  
UNSEGREGATED OXIDE SUPERCONDUCTOR SILVER COMPOSITE

Title (de)  
NICHT ENTMISCHTE SILBER ENTHALTENDE OXIDISCHE SUPRALEITER ZUSAMMENSETZUNG

Title (fr)  
COMPOSITE D'ARGENT/DE SUPRACONDUCTEUR A OXYDE SANS SEGREGATION

Publication  
**EP 0705229 A1 19960410 (EN)**

Application  
**EP 94923901 A 19940623**

Priority  
• US 9407131 W 19940623  
• US 8209393 A 19930624  
• US 10256193 A 19930805

Abstract (en)  
[origin: WO9500457A1] A method for forming unsegregated metal oxide-silver composites includes preparing a precursor alloy comprising silver and precursor elements of a desired metal oxide and oxidizing the alloy under conditions of high oxygen activity selected to permit diffusion of oxygen into silver while significantly restricting the diffusion of the precursor elements into silver, such that oxidation of the precursor elements to the metal oxide occurs before diffusion of the metallic elements into silver. Further processing of the metal oxide composite affords an oxide superconducting composite with a highly unsegregated microstructure. A novel precursor may be used in conjunction with the oxidation under conditions of high oxygen activity to further restrict segregation of metal oxide-silver composite. A precursor composite for preparation of an oxide superconductor includes a primary alloy phase of constituent elements of a desired oxide superconductor; and a secondary phase comprising copper, the secondary phase supported by the primary alloy phase. The composite may additionally include a matrix material for supporting the primary alloy phase and second phase disposed therein. The composite is oxidized to form an oxide superconductor composite.

IPC 1-7  
**C04B 35/00**

IPC 8 full level  
**C01G 1/00** (2006.01); **C01G 3/00** (2006.01); **C01G 13/00** (2006.01); **C01G 15/00** (2006.01); **C01G 29/00** (2006.01); **C04B 35/45** (2006.01); **C04B 35/65** (2006.01); **H01L 39/24** (2006.01)

CPC (source: EP)  
**C04B 35/45** (2013.01); **C04B 35/65** (2013.01); **H10N 60/0801** (2023.02)

Citation (search report)  
See references of WO 9500457A1

Designated contracting state (EPC)  
CH DE ES FR GB IT LI NL SE

DOCDB simple family (publication)  
**WO 9500457 A1 19950105**; EP 0705229 A1 19960410; JP H09500351 A 19970114

DOCDB simple family (application)  
**US 9407131 W 19940623**; EP 94923901 A 19940623; JP 50309595 A 19940623