

Title (en)  
PROCESS FOR MANUFACTURING A COMPOSITE MATERIAL

Publication  
**EP 0170867 B1 19880824 (DE)**

Application  
**EP 85108013 A 19850628**

Priority  
DE 3426916 A 19840721

Abstract (en)  
[origin: EP0170867A1] 1. A process for the production of a composite material made of copper and at least one of the metals molybdenum and tungsten, in particular as a substrate material for power semiconductors, in which the materials, which are present in powder form, are mixed, compressed to form shaped bodies, and sintered, and the sintered bodies are then subjected to mechanical working comprising the following process steps : a) mixing of copper powder with molybdenum and/or tungsten powder with an average particle size of less than 100  $\mu\text{m}$ , b) compression of the powder mixture, c) sintering of the powder mixture at a temperature above the melting point of copper, d) hot working of the sintered body at a temperature below 1000 degrees C by at least 50% in one step, e) cold working of the sintered body for a further cross-sectional reduction to the final value.

IPC 1-7  
**C22C 1/04**; H01L 23/48

IPC 8 full level  
**C22C 1/04** (2006.01); **H01L 23/48** (2006.01)

CPC (source: EP)  
**C22C 1/0425** (2013.01); **H01L 2924/0002** (2013.01)

Cited by  
US5062025A; EP1553627A1; US5043025A; EP0336944A4; EP1231633A4; US7083759B2

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DOCDB simple family (publication)  
**EP 0170867 A1 19860212**; **EP 0170867 B1 19880824**; DE 3426916 A1 19860123; DE 3564590 D1 19880929

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