

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: 89630051.4

(51) Int. Cl.⁵: **C04B 41/88, C22C 32/00,**
C04B 35/65

(22) Date of filing: 13.03.89

(30) Priority: 15.03.88 US 168284

(43) Date of publication of application:
20.09.89 Bulletin 89/38

(84) Designated Contracting States:
AT BE CH DE ES FR GB GR IT LI LU NL SE

(88) Date of deferred publication of the search report:
12.12.90 Bulletin 90/50

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(54) **Metal matrix composites and techniques for making the same.**

(57) The present invention relates to novel ceramic-filled metal matrix composites and methods for making the same. Particularly, a permeable mass of filler material is spontaneously infiltrated by, for example, an aluminum alloy, in the presence of nitrogen-containing atmosphere. A reservoir feeding technique for forming metal matrix composite bodies is also disclosed. The reservoir feeding technique can also be used to form complex (e.g., a metal bonded to a metal matrix composite) metal matrix composite bodies.

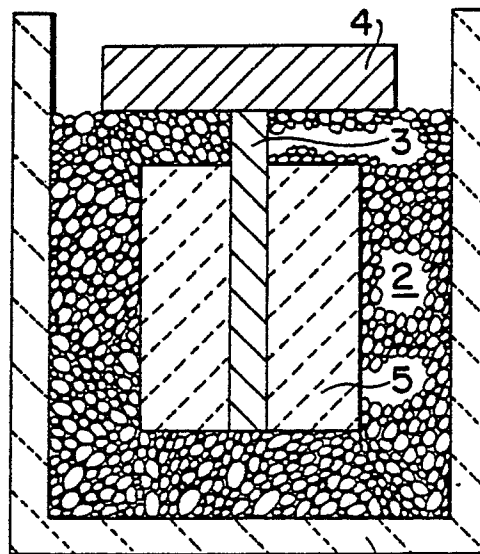


Fig. 1



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Y,P	EP-A-0 291 441 (LANXIDE TECHNOLOGY CO. LP) * Claims 1,20 * ---	1-3	C 04 B 41/88 C 04 B 35/65 C 22 C 1/10 C 22 C 32/00
Y,P	EP-A-0 262 075 (LANXIDE TECHNOLOGY CO. LP) * Claims 1-2,8-10 * ---	1,3	
Y,P	EP-A-0 263 051 (LANXIDE TECHNOLOGY CO. LP) * Claim 5; page 5, column 8, lines 21-24; page 6, column 9, lines 25-30 * ---	2	
A	US-A-3 175 260 (H.C. BRIDWELL et al.) * Claims 1,5; column 2, lines 13-19 * ---	1	
A	EP-A-0 250 210 (THE REGENTS OF THE UNIVERSITY OF CALIFORNIA) * Claims 1-3; page 2, lines 29-38; page 3, lines 42-46; page 4, lines 39-44 * -----	1-3	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			C 04 B C 22 C
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 28-09-1990	Examiner RIGONDAUD B.P.A.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	