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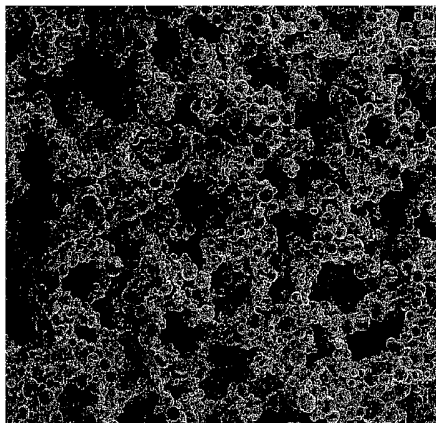
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(54) Title: POROUS METALLIC MATERIALS AND METHOD OF PRODUCTION THEREOF



(57) Abstract: The present invention relates to a process for producing porous metallic materials comprising the steps of: (a) mixing metallic particles with a carbonate additive and a binder, wherein the quantity of carbonate additive in the mixture is in the range of 40 to 90 vol % and compressing the mixture beyond the yield strength of the metallic particles; (b) heating the mixture to a first temperature sufficient to evaporate the binder; (c) heating and maintaining the temperature of the mixture to a second temperature sufficient to sinter the metallic particles but insufficient to decompose or melt the carbonate additive; (d) removing the carbonate additive from the sintered porous metallic material; and optionally (e) heating and maintaining the temperature of the porous metallic material to a third temperature greater than the second temperature so as to enhance the sintering. The present invention also relates to metallic materials produced by such a process.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B22F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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X	DATABASE WPI Section Ch, Week 197735 Derwent Publications Ltd., London, GB; Class M22, AN 1977-61766Y XP002368276 -& JP 52 085006 A (TANAKA PRECIOUS METAL IND) 15 July 1977 (1977-07-15) abstract	1-25
Y	ZHAO Y Y ET AL: "Novel sintering-dissolution process for manufacturing Al foams" SCRIPTA MATER; SCRIPTA MATERIALIA JAN 2001 ELSEVIER SCIENCE LTD, EXETER, ENGL, vol. 44, no. 1, January 2001 (2001-01), pages 105-110, XP002368268	1-20
X	----- -/--	21-25

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☒ See patent family annex.

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	LAPTEV A ET AL: "Study of production route for titanium parts combining very high porosity and complex shape" POWDER METALL; POWDER METALLURGY MARCH 2004, vol. 47, no. 1, March 2004 (2004-03), pages 85-92, XP002368269	1
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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