

Title (en)
METHOD FOR MANUFACTURING A COMPOSITE PART

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES VERBUNDTEILS

Title (fr)
PROCEDE DE FABRICATION D'UNE PIECE COMPOSITE

Publication
EP 3452243 A1 20190313 (FR)

Application
EP 17721112 A 20170428

Priority
• EP 16168124 A 20160503
• EP 2017060192 W 20170428

Abstract (en)
[origin: WO2017191050A1] The invention relates to a method for manufacturing a composite part comprising a first material that contains 316L steel powder as well as a second material that contains zirconia powder, the composite part being formed in a single sintering step.

IPC 8 full level
B22F 7/06 (2006.01); **C22C 33/02** (2006.01)

CPC (source: CN EP US)
A44C 5/0053 (2013.01 - US); **B22F 3/1021** (2013.01 - CN); **B22F 3/225** (2013.01 - CN US); **B22F 3/24** (2013.01 - CN US); **B22F 5/10** (2013.01 - CN); **B22F 7/06** (2013.01 - CN EP US); **B28B 1/24** (2013.01 - US); **B28B 11/0845** (2013.01 - US); **B22F 2003/247** (2013.01 - CN US); **B22F 2301/35** (2013.01 - US); **B22F 2302/25** (2013.01 - US); **B22F 2998/10** (2013.01 - EP US); **C22C 33/0285** (2013.01 - EP US); **G04B 3/04** (2013.01 - US); **G04B 19/042** (2013.01 - US); **G04B 19/12** (2013.01 - US); **G04B 19/18** (2013.01 - US); **G04B 37/22** (2013.01 - US); **G04B 39/004** (2013.01 - US); **Y02P 10/25** (2015.11 - EP)

C-Set (source: EP US)
EP
1. **B22F 2998/10 + B22F 3/225 + B22F 3/10**
2. **B22F 2998/10 + B22F 3/22 + B22F 3/10**
3. **B22F 2998/10 + B22F 3/02 + B22F 3/10**
4. **B22F 2998/10 + B22F 10/10 + B22F 3/10 + B22F 10/66**
US
1. **B22F 2998/10 + B22F 3/225 + B22F 3/10**
2. **B22F 2998/10 + B22F 10/10 + B22F 3/10**
3. **B22F 2998/10 + B22F 3/22 + B22F 3/10**
4. **B22F 2998/10 + B22F 3/02 + B22F 3/10**
5. **B22F 2998/10 + B22F 10/10 + B22F 3/10 + B22F 10/66**

Citation (examination)
• JP H0711305 A 19950113 - SEIKO INSTR INC
• S. B. HEIN: "Powder injection moulding of metal ceramic interpenetrating phase composites", POWDER METALLURGY., vol. 57, no. 5, 15 December 2014 (2014-12-15), GB, pages 348 - 356, XP093157783, ISSN: 0032-5899, Retrieved from the Internet <URL:https://dx.doi.org/10.1179/1743290114Y.0000000116> DOI: 10.1179/1743290114Y.0000000116
• See also references of WO 2017191050A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3241636 A1 20171108; CN 109070229 A 20181221; CN 118162621 A 20240611; EP 3452243 A1 20190313; JP 2019521243 A 20190725; JP 6751774 B2 20200909; US 11701708 B2 20230718; US 2019143416 A1 20190516; WO 2017191050 A1 20171109

DOCDB simple family (application)
EP 16168124 A 20160503; CN 201780027179 A 20170428; CN 202410293479 A 20170428; EP 17721112 A 20170428; EP 2017060192 W 20170428; JP 2018555662 A 20170428; US 201716093424 A 20170428