

Title (en)  
COMPOSITE MATERIAL COMPRISING A SILVER INFILTRATION AS AN ANTIBACTERIAL MATRIX MATERIAL ESPECIALLY FOR BIOFILM REDUCTION

Title (de)  
VERBUNDMATERIAL MIT SILBERINFILTRATION ALS ANTIBAKTERIELLER MATRIXWERKSTOFF INSBESONDERE ZUR BIOFILMREDUKTION

Title (fr)  
MATÉRIAU COMPOSITE COMPRENANT UNE INFILTRATION D'ARGENT EN TANT QUE MATÉRIAU DE MATRICE ANTIBACTÉRIEN, EN PARTICULIER POUR LA RÉDUCTION DE BIOFILM

Publication  
**EP 4313448 A1 20240207 (DE)**

Application  
**EP 22717168 A 20220323**

Priority  
• EP 21164744 A 20210324  
• EP 2022057631 W 20220323

Abstract (en)  
[origin: WO2022200429A1] The present invention relates to a composite material made of an open-pored porous, sintered matrix material and elemental silver, wherein the elemental silver is infiltrated into the pores of the open-pored porous, sintered matrix material, the content of silver in the composite material is between 6% by weight and 30% by weight and the open-pored porous, sintered matrix material consists of at least one metal, at least one metal alloy or at least one ceramic, to processes for producing this composite material and to medical implants containing this composite material. The composite material is especially suitable for reduction and avoidance of biofilm formation.

IPC 8 full level  
**B22F 3/06** (2006.01); **A61C 7/12** (2006.01); **A61C 8/00** (2006.01); **A61F 2/28** (2006.01); **A61F 2/30** (2006.01); **A61F 2/38** (2006.01); **A61F 2/44** (2006.01); **A61K 6/844** (2020.01); **B22F 3/12** (2006.01); **B22F 3/26** (2006.01); **B22F 10/28** (2021.01); **B33Y 10/00** (2015.01); **B33Y 70/00** (2020.01); **B33Y 80/00** (2015.01); **C22C 1/04** (2023.01); **C22C 1/05** (2023.01); **C22C 29/12** (2006.01); **C22C 33/02** (2006.01); **C25D 1/00** (2006.01)

CPC (source: EP)  
**A61F 2/44** (2013.01); **A61K 6/844** (2020.01); **B22F 3/26** (2013.01); **B22F 10/28** (2021.01); **B33Y 10/00** (2014.12); **B33Y 70/00** (2014.12); **B33Y 80/00** (2014.12); **C04B 41/009** (2013.01); **C04B 41/5116** (2013.01); **C04B 41/88** (2013.01); **C22C 1/045** (2013.01); **C22C 1/05** (2013.01); **C22C 29/12** (2013.01); **C22C 33/0242** (2013.01); **A61C 8/0013** (2013.01); **A61C 2008/0046** (2013.01); **A61F 2/28** (2013.01); **A61F 2/30** (2013.01); **A61F 2/38** (2013.01); **A61F 2002/30736** (2013.01); **A61F 2002/30962** (2013.01); **C04B 2111/00836** (2013.01); **C22C 33/0285** (2013.01)

C-Set (source: EP)  
1. **C04B 41/009 + C04B 35/10 + C04B 38/00**  
2. **C04B 41/009 + C04B 35/48 + C04B 38/00**  
3. **C04B 41/5116 + C04B 41/4523**

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

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4063042 A1 20220928**; EP 4313448 A1 20240207; WO 2022200429 A1 20220929

DOCDB simple family (application)  
**EP 21164744 A 20210324**; EP 2022057631 W 20220323; EP 22717168 A 20220323