

Title (en)  
STAINLESS STEEL MATERIAL AND METHOD FOR MANUFACTURING SAME, AND ANTIBACTERIAL/ANTIVIRAL MEMBER

Title (de)  
EDELSTAHLMATERIAL UND VERFAHREN ZUR HERSTELLUNG DAVON SOWIE ANTIBAKTERIELLES/ANTIVIRALES ELEMENT

Title (fr)  
MATÉRIAU À BASE D'ACIER INOXYDABLE ET SON PROCÉDÉ DE FABRICATION, ET ÉLÉMENT ANTIBACTÉRIEN/ANTIVIRAL

Publication  
**EP 4317481 A1 20240207 (EN)**

Application  
**EP 22775296 A 20220315**

Priority

- JP 2021054052 A 20210326
- JP 2021054054 A 20210326
- JP 2022011738 W 20220315

Abstract (en)  
A stainless steel material has  $\epsilon$ -Cu phases exposed on a surface of the stainless steel material. The  $\epsilon$ -Cu phases on the surface have an area ratio of 0.1 to 4.0%, an average particle size of 10 to 300 nm, and a maximum interparticle distance of 100 to 1000 nm.

IPC 8 full level  
**C21D 9/46** (2006.01); **C22C 38/00** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR US)  
**C21D 1/26** (2013.01 - EP); **C21D 1/84** (2013.01 - US); **C21D 6/002** (2013.01 - EP); **C21D 6/004** (2013.01 - EP US); **C21D 6/005** (2013.01 - US); **C21D 6/007** (2013.01 - US); **C21D 6/008** (2013.01 - US); **C21D 8/005** (2013.01 - US); **C21D 8/0205** (2013.01 - EP); **C21D 8/0226** (2013.01 - EP KR); **C21D 8/0236** (2013.01 - KR); **C21D 8/0263** (2013.01 - EP); **C21D 8/0273** (2013.01 - KR); **C21D 9/46** (2013.01 - EP KR); **C22C 38/001** (2013.01 - KR US); **C22C 38/002** (2013.01 - EP US); **C22C 38/005** (2013.01 - EP US); **C22C 38/008** (2013.01 - EP KR US); **C22C 38/02** (2013.01 - US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/20** (2013.01 - EP); **C22C 38/42** (2013.01 - EP KR US); **C22C 38/44** (2013.01 - EP KR US); **C22C 38/46** (2013.01 - EP US); **C22C 38/48** (2013.01 - EP KR US); **C22C 38/50** (2013.01 - EP KR US); **C22C 38/52** (2013.01 - EP KR US); **C22C 38/54** (2013.01 - EP US); **C22C 38/58** (2013.01 - EP KR); **C23G 1/08** (2013.01 - KR); **C25F 3/24** (2013.01 - EP KR); **C21D 2211/001** (2013.01 - EP KR US); **C21D 2211/004** (2013.01 - EP); **C21D 2211/005** (2013.01 - EP KR US)

Designated contracting state (EPC)  
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Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4317481 A1 20240207**; CN 116368246 A 20230630; KR 20230076838 A 20230531; MX 2023011015 A 20230927; TW 202242161 A 20221101; TW I814284 B 20230901; US 2024060151 A1 20240222; WO 2022202507 A1 20220929

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