

Title (en)

METHOD FOR METALLISING A POROUS STRUCTURE MADE OF A CARBON MATERIAL

Title (de)

METALLISIERUNGSVERFAHREN EINER PORÖSEN STRUKTUR IN EINEM KOHLENSTOFFMATERIAL

Title (fr)

PROCÉDÉ DE MÉTALLISATION D'UNE STRUCTURE POREUSE EN UN MATÉRIAU CARBONÉ

Publication

EP 3502310 B1 20200513 (FR)

Application

EP 18213736 A 20181218

Priority

FR 1762512 A 20171219

Abstract (en)

[origin: US2019186017A1] Method for metallising a porous structure made of carbon material, the method comprising the following steps: supplying a porous structure made of carbon material, immersing the porous structure in a solution comprising an ionic liquid, formed by a cation and an anion, and a metal precursor, placing the porous structure in a vacuum, immersed in the solution, in such a way as to cause the solution to penetrate into the porosity of the porous structure, adding a hydrogenated reducing agent, in such a way as to metallise the porous structure to within the porosity of the porous structure.

IPC 8 full level

C23C 18/16 (2006.01); **C23C 18/31** (2006.01); **C23C 18/34** (2006.01); **C23C 18/40** (2006.01); **C23C 18/44** (2006.01); **C23C 18/52** (2006.01)

CPC (source: EP US)

C23C 18/1639 (2013.01 - EP US); **C23C 18/1644** (2013.01 - EP US); **C23C 18/1682** (2013.01 - EP US); **C23C 18/31** (2013.01 - EP US); **C23C 18/34** (2013.01 - EP US); **C23C 18/40** (2013.01 - EP US); **C23C 18/44** (2013.01 - EP US); **C23C 18/52** (2013.01 - EP US)

Citation (examination)

- US 2011266504 A1 20111103 - FRANSAER JAN [BE]
- CHANDRAMOULI SUBRAMANIAM ET AL: "Nano-scale, planar and multi-tiered current pathways from a carbon nanotube-copper composite with high conductivity, ampacity and stability", NANOSCALE, vol. 8, no. 7, 1 January 2016 (2016-01-01), United Kingdom, pages 3888 - 3894, XP055647121, ISSN: 2040-3364, DOI: 10.1039/C5NR03762J

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

DOCDB simple family (publication)

EP 3502310 A1 20190626; **EP 3502310 B1 20200513**; FR 3075225 A1 20190621; FR 3075225 B1 20200110; US 11427915 B2 20220830; US 2019186017 A1 20190620

DOCDB simple family (application)

EP 18213736 A 20181218; FR 1762512 A 20171219; US 201816217228 A 20181212