

Title (en)  
SILICON-CARBON COMPOSITES

Title (de)  
SILICIUM-KOHLENSTOFF-VERBUNDWERKSTOFFE

Title (fr)  
COMPOSITES SILICIUM-CARBONE

Publication  
**EP 4200252 A1 20230628 (EN)**

Application  
**EP 21769274 A 20210818**

Priority

- US 202016996694 A 20200818
- US 202063075566 P 20200908
- US 202117336104 A 20210601
- US 202117336085 A 20210601
- US 2021046527 W 20210818

Abstract (en)  
[origin: WO2022040328A1] Silicon carbon composite materials and related processes are disclosed that overcome the challenges for providing amorphous nano sized silicon entrained within porous carbon. Compared to other, inferior materials and processes described in the prior art, the materials and processes disclosed herein find superior utility in various applications, including energy storage devices such as lithium ion batteries.

IPC 8 full level  
**C01B 32/00** (2017.01); **C01B 33/035** (2006.01); **H01M 4/134** (2010.01); **H01M 4/1395** (2010.01); **H01M 4/38** (2006.01); **H01M 4/62** (2006.01)

CPC (source: EP KR)  
**C01B 32/00** (2017.07 - EP KR); **C01B 33/035** (2013.01 - EP KR); **H01M 4/134** (2013.01 - EP KR); **H01M 4/1395** (2013.01 - EP KR); **H01M 4/386** (2013.01 - EP KR); **H01M 4/625** (2013.01 - EP KR); **H01M 10/0525** (2013.01 - KR); **H01M 10/0525** (2013.01 - EP); **H01M 2004/027** (2013.01 - KR); **Y02E 60/10** (2013.01 - EP KR)

Citation (search report)  
See references of WO 2022040328A1

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)  
**WO 2022040328 A1 20220224**; CN 116348413 A 20230627; EP 4200252 A1 20230628; JP 2023538913 A 20230912; KR 20230051676 A 20230418

DOCDB simple family (application)  
**US 2021046527 W 20210818**; CN 202180069348 A 20210818; EP 21769274 A 20210818; JP 2023512068 A 20210818; KR 20237006540 A 20210818