

Title (en)

CRYSTALLINE GRAPHITE NANOFIBERS AND A PROCESS FOR PRODUCING SAME

Title (de)

KRISTALLINE GRAPHITNANOFASERN UND VERFAHREN ZUR HERSTELLUNG DERSELBEN

Title (fr)

NANOFIBRES DE GRAPHITE CRISTALLIN ET PROCEDE DE PRODUCTION CORRESPONDANT

Publication

**EP 1349808 A1 20031008 (EN)**

Application

**EP 01968718 A 20010907**

Priority

- US 0128199 W 20010907
- US 65944100 A 20000908
- US 90211301 A 20010710

Abstract (en)

[origin: WO0220401A1] A process for producing substantially crystalline graphitic carbon nanofibers comprised of graphic sheets. The graphic sheets are substantially parallel or substantially perpendicular to the longitudinal axis of the carbon nanofiber. When the graphite sheets are to be substantially parallel, these carbon nanofibers are produced by contacting an iron, or an iron:copper, or an iron:nickel bimetallic bulk catalyst with a mixture of carbon monoxide and hydrogen at temperatures from about 670 DEG C to about 725 DEG C for an effective amount of time. When they are to be substantially perpendicular, the nanofibers are produced by use of an iron:copper bimetallic bulk catalyst at temperatures for about 550 DEG C to about 670 DEG C.

IPC 1-7

**C01B 31/00**; **D01F 9/12**

IPC 8 full level

**C01B 31/02** (2006.01); **D01F 9/127** (2006.01)

CPC (source: EP US)

**B82Y 30/00** (2013.01 - EP US); **B82Y 40/00** (2013.01 - EP US); **C01B 32/05** (2017.07 - EP US); **C01B 32/15** (2017.07 - EP US); **D01F 9/1278** (2013.01 - EP US); **C01P 2004/16** (2013.01 - EP US); **Y10T 428/2918** (2015.01 - EP US)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

**WO 0220401 A1 20020314**; CA 2420004 A1 20020314; EP 1349808 A1 20031008; EP 1349808 A4 20060201; US 2002054849 A1 20020509; US 2004071625 A1 20040415

DOCDB simple family (application)

**US 0128199 W 20010907**; CA 2420004 A 20010907; EP 01968718 A 20010907; US 62506903 A 20030722; US 90211301 A 20010710