Title (en)

CATALYST FOR PRODUCING CARBON NANOTUBES BY MEANS OF THE DECOMPOSITION OF GASEOUS CARBON COMPOUNDS ON A HETEROGENEOUS CATALYST

Title (de)

KATALYSATOR ZUR HERSTELLUNG VON KOHLENSTOFFNANORÖHRCHEN DURCH ZERSETZUNG VON GASFÖRMIGEN KOHLENSTOFFVERBINDUNGEN AN EINEM HETEROGENEN KATALYSATOR

Title (fr)

CATALYSEUR POUR PRODUIRE DES NANOTUBES DE CARBONE PAR DECOMPOSITION DE COMPOSES DE CARBONE GAZEUX SUR UN CATALYSEUR HETEROGENE

Publication

EP 1812159 A2 20070801 (DE)

Application

EP 05816390 A 20051108

Priority

- EP 2005011925 W 20051108
- DE 102004054959 A 20041113

Abstract (en)

[origin: WO2006050903A2] The invention relates to a method for producing carbon nanotubes, especially nanotubes with a diameter of between 3 and 150 nm and an aspect ratio length:diameter (L:D) > 100, by means of the decomposition of hydrocarbons on a heterogeneous catalyst containing Mn, Co, preferably also molybdenum, and an inert carrier material. The invention also relates to the catalyst and the carbon nanotubes themselves, and to the use thereof.

IPC 8 full level

B01J 23/889 (2006.01); **B01J 21/10** (2006.01); **C01B 31/00** (2006.01); **D01F 9/127** (2006.01); **H01L 51/30** (2006.01)

CPC (source: EP KR US)

B01J 21/10 (2013.01 - EP KR US); **B01J 23/8892** (2013.01 - EP KR US); **B01J 23/8898** (2013.01 - EP KR US); **B82B 3/0004** (2013.01 - KR); **B82Y 10/00** (2013.01 - EP US); **B82Y 30/00** (2013.01 - EP US); **B82Y 40/00** (2013.01 - EP US); **C01B 32/162** (2017.07 - EP KR US); **D01F 9/127** (2013.01 - EP KR US); **H10K 85/221** (2023.02 - KR); **H10K 85/615** (2023.02 - KR); C01B 2202/34 (2013.01 - EP KR US); C01B 2202/36 (2013.01 - EP KR US); H10K 85/221 (2023.02 - EP US); H10K 85/615 (2023.02 - EP US)

Citation (search report)

See references of WO 2006050903A2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

DE 102004054959 A1 20060518; CN 101142020 A 20080312; CN 101142020 B 20120502; EP 1812159 A2 20070801; JP 2008519679 A 20080612; JP 5702043 B2 20150415; KR 101292489 B1 20130801; KR 20070084180 A 20070824; TW 200730245 A 20070816; US 2009140215 A1 20090604; US 9409779 B2 20160809; WO 2006050903 A2 20060518; WO 2006050903 A3 20060908

DOCDB simple family (application)

DE 102004054959 A 20041113; CN 200580046507 A 20051108; EP 05816390 A 20051108; EP 2005011925 W 20051108; JP 2007540559 A 20051108; KR 20077010697 A 20051108; TW 95104720 A 20060213; US 71915205 A 20051108