

Title (en)
PITCH BASED CARBON FIBERS

Publication
EP 0384761 A3 19910904 (EN)

Application
EP 90301916 A 19900222

Priority
JP 4030889 A 19890222

Abstract (en)
[origin: EP0384761A2] A pitch based carbon fiber having a novel structure and an improved mechanical strength is provided. The carbon fiber has, in an X-ray diffraction pattern thereof, (100) and (101) lines, no (112) line, has an interlayer spacing in the range of 3.38 to 3.43 ANGSTROM , and further has a corrugated carbon layer, with pitches of the corrugation being in the range of 300 to 3,000 ANGSTROM . The melt-spinning apparatus is provided with a nozzle having an elongated member disposed therein.

IPC 1-7
D01F 9/145; **D01D 4/02**; **D01F 9/00**

IPC 8 full level
D01F 9/14 (2006.01); **D01D 4/02** (2006.01); **D01F 9/00** (2006.01); **D01F 9/145** (2006.01); **D01F 9/155** (2006.01)

CPC (source: EP)
D01D 4/02 (2013.01); **D01F 9/00** (2013.01); **D01F 9/145** (2013.01)

Citation (search report)

- [YD] US 4717331 A 19880105 - MAEDA NAOYUKI [JP], et al
- [Y] EP 0219964 A1 19870429 - UNIV CLEMSON [US]
- [A] US 4016247 A 19770405 - OTANI SUGIO, et al
- [A] PATENT ABSTRACTS OF JAPAN, vol. 10, nr. 31 (C-327)[2088], 6th February 1986; & JP-A-60 181 313 (NIPPON SEKIJU K.K.) 17-09-1985

Cited by
US2014357761A1

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 0384761 A2 19900829; **EP 0384761 A3 19910904**; **EP 0384761 B1 19950621**; DE 69020185 D1 19950727; DE 69020185 T2 19951102; JP 2640528 B2 19970813; JP H02221418 A 19900904

DOCDB simple family (application)
EP 90301916 A 19900222; DE 69020185 T 19900222; JP 4030889 A 19890222