Title (en)

HIGH DENSITY GRAPHITE FIBER AND METHOD OF MANUFACTURE THEREOF

Publication

EP 0374925 A3 19910925 (EN)

Application

EP 89123668 A 19891221

Priority

JP 32439788 A 19881222

Abstract (en)

[origin: EP0374925A2] A graphite fiber derived from an acrylic fiber having a fiber density of not less than 1.93 g/cm<3>, a strand tensile strength of not less than 350 kgf/mm<2>, and a strand tensile modulus of not less than 53x10<3> kgf/mm<2>, and a method for producing the grpahite fiber by carbonizing a preoxidized fiber derived from an acrylic fiber and having a fiber density of from 1.32 to 1.40 g/cm<3> to obtain a carbon fiber having a nitrogen content of not less than 1.0% by weight based on the carbon fiber weight, a fiber density of not less than 1.79 g/cm<3> and an orientation of not less than 79% at a maximum diffraction at 2 theta =25.3+/-0.5 DEG in X-ray diffraction angle of the (002) plane of the graphite crystal, and graphitizing the thus-obtained carbon fiber in an inert gas at a temperature of not lower than 2,400 DEG C and under a tension to stretch the fiber at least 3% during the graphitization.

IPC 1-7

D01F 9/22

IPC 8 full level

D01F 9/22 (2006.01)

CPC (source: EP)

D01F 9/22 (2013.01)

Citation (search report)

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- [A] EP 0100410 A2 19840215 - TORAY INDUSTRIES [JP]
- [A] US 3454362 A 19690708 - SPRY WILLIAM J

Cited by

EP0843033A4; US7939046B2; US8051666B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0374925 A2 19900627; **EP 0374925 A3 19910925**; **EP 0374925 B1 19950308**; DE 68921581 D1 19950413; DE 68921581 T2 19950817

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