

Title (en)

PROCESS FOR PRODUCING A CARBON FIBER PRECURSOR

Publication

EP 0238787 B1 19890719 (DE)

Application

EP 87100271 A 19870112

Priority

DE 3610375 A 19860327

Abstract (en)

[origin: US4756818A] A method for the production of a carbon fiber precursor from coal tar pitch comprising extracting coal tar pitch at elevated temperatures and pressures with a mixture of a supercritical gas and an entraining agent to obtain a solution free of quinoline-insoluble components, recovering from the solution by lowering the pressure and/or raising the temperature to obtain at least one fraction selected from the group consisting of quinoline-soluble fraction and toluene-soluble fraction, treating the said fraction(s) at 380 DEG to 450 DEG C. under a non-oxidizing atmosphere at atmosphere pressure until 40 to 65% by volume of the product is converted into pitch containing mesophase, extracting the latter pitch with a mixture of supercritical gas and an entraining agent to remove isotropic pitch and recovering isotropic pitch with a mesophase content of at least 75% by volume, a pyridine-insoluble matter content of 20 to 50% by weight, a mean molecular weight of 900 to 1200 and a melting point of 330 DEG to 360 DEG C. and the isotropic pitch product produced therefrom and carbon fibers made from the isotropic pitch.

IPC 1-7

C10C 3/00; D01F 9/14

IPC 8 full level

C10C 3/02 (2006.01); **C08L 95/00** (2006.01); **C10C 1/04** (2006.01); **C10C 3/00** (2006.01); **C10C 3/04** (2006.01); **C10C 3/08** (2006.01); **D01F 9/14** (2006.01); **D01F 9/15** (2006.01)

CPC (source: EP US)

C10C 1/04 (2013.01 - EP US); **C10C 3/08** (2013.01 - EP US); **D01F 9/15** (2013.01 - EP US)

Citation (examination)

- DE 3509861 A1 19851003 - IDEMITSU KOSAN CO [JP]
- DE 3242629 A1 19830526 - NIPPON OIL CO LTD [JP]

Cited by

DE4141164C2; EP0480106A1; AU658596B2

Designated contracting state (EPC)

DE FR GB IT NL

DOCDB simple family (publication)

EP 0238787 A2 19870930; EP 0238787 A3 19871216; EP 0238787 B1 19890719; DE 3610375 A1 19871001; DE 3760336 D1 19890824; JP S62243830 A 19871024; PL 151114 B1 19900831; PL 264837 A1 19880512; US 4756818 A 19880712

DOCDB simple family (application)

EP 87100271 A 19870112; DE 3610375 A 19860327; DE 3760336 T 19870112; JP 7196487 A 19870327; PL 26483787 A 19870326; US 1820087 A 19870224