

Title (en)

Process for producing a carbon fiber precursor.

Title (de)

Verfahren zur Herstellung eines Kohlenstoffaser-Vorprodukts.

Title (fr)

Procédé de production d'un précurseur de fibres de carbone.

Publication

**EP 0238787 A2 19870930 (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.

Abstract (de)

Die Erfindung betrifft ein Verfahren zur Herstellung eines Kohlenstoffaser-Vorprodukts aus Steinkohlenteerpech, wobei die Abtrennung der unerwünschten Bestandteile des Ausgangspechs ebenso wie die Abtrennung des isotropen Materials aus dem durch thermische Behandlung erzeugten Mesophasen-Pechs mit Hilfe überkritischer Gase unter Verwendung geeigneter Schleppmittel erfolgt. Das so erhaltene Vorprodukt besteht zu mindestens 80 % aus Mesophasensphärulen, die leicht plastisch verformt und damit zu Fäden versponnen werden können.

IPC 1-7

**C10C 3/00; D01F 9/14**

IPC 8 full level

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CPC (source: EP US)

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**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

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