Title (en)
PROCESS FOR PRODUCING A CARBON FIBER PRECURSOR AND CARBON FIBERS PRODUCED THEREWITH

Publication
EP 0238787 A3 19871216 (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
C08L 95/00 (2006.01); C10C 1/04 (2006.01); C10C 3/00 (2006.01); C10C 3/02 (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 (search report)
- [A] EP 0084237 A2 19830727 - ASHLAND OIL INC [US]
- [A] GB 1057911 A 19670208 - STUDIENGESELLSCHAFT KOHLE MBH [DE]
- [A] US 4354928 A 19821019 - AUDEH COSTANDI A, et al

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Designated contracting state (EPC)
DE FR GB IT NL

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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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