

Title (en)

High tenacity and modulus polyacrylonitrile fiber and method.

Title (de)

Polyacrylnitrilfaser mit hoher Festigkeit und hohem Modul und Verfahren zur Herstellung derselben.

Title (fr)

Fibre en polyacrylonitrile à haute ténacité et haut module, et procédé de fabrication.

Publication

**EP 0144793 A2 19850619 (EN)**

Application

**EP 84113512 A 19841109**

Priority

US 55798483 A 19831205

Abstract (en)

Polyacrylonitrile (PAN) fibers are prepared by forming a 2-15 weight % solution of PAN of Mw at least 500,000, extruding, cooling to below the gel temperature, extracting and drying. At least one of the gel fiber, the fiber containing extraction solvent and the dried gel is stretched. The product PAN fibers have a Mw at least 500,000 (eg. 1,000,000-4,000,000 or 1,500,000-2,500,000), a tenacity at least 5 g/den (e.g., at least 7 g/den) and a secant modulus at least 100 g/den (e.g. at least 125 g/den).

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**D01F 6/18**; **D01D 5/00**

IPC 8 full level

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CPC (source: EP)

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**EP 0144793 A2 19850619**; **EP 0144793 A3 19850911**; **EP 0144793 B1 19881012**; CA 1234662 A 19880405; DE 3474573 D1 19881117; JP H064923 B2 19940119; JP S60139809 A 19850724

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