

Title (en)

CARBON FIBER MANUFACTURING METHOD AND CARBON FIBER MANUFACTURING APPARATUS

Title (de)

VERFAHREN ZUR HERSTELLUNG EINER KOHLEFASER UND VORRICHTUNG ZUR HERSTELLUNG EINER KOHLEFASER

Title (fr)

PROCÉDÉ DE FABRICATION DE FIBRE DE CARBONE ET APPAREIL DE FABRICATION DE FIBRE DE CARBONE

Publication

**EP 3348684 B1 20200729 (EN)**

Application

**EP 17000054 A 20170112**

Priority

EP 17000054 A 20170112

Abstract (en)

[origin: EP3348684A1] A carbon fiber manufacturing method and a carbon fiber manufacturing apparatus are provided. A carbon fiber precursor fiber bundle (70A) is performed with a high-temperature carbonization step to form a carbon fiber (70B), and then the carbon fiber (70B) is performed with a plasma surface treatment so that the surface of the carbon fiber (70B) is formed with a plasma-modified configuration (71) which is relatively rougher. Finally, the surface of the carbon fiber (70B) is coated with a resin oiling agent (80) to obtain the carbon fiber (70B) having the resin oiling agent (80) thereon. Particularly, through a plasma surface treatment step, the surface of the carbon fiber (70B) is roughened and provided with functional groups, which is beneficial to enhance the interface bonding of the resin oiling agent (80) and the carbon fiber (70B). The structure of the carbon fiber (70B) is more stable and reliable. The cost of the carbon fiber production equipment and the working time can be reduced effectively.

IPC 8 full level

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CPC (source: EP)

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