

Title (en)

Process and apparatus for the production of fibres, which give off gases and/or vapours during their spinning

Title (de)

Verfahren und Vorrichtung zur Herstellung von Fasern, die während des Verspinnens störende Gase und/oder Dämpfe abgeben

Title (fr)

Procédé et dispositif pour la fabrication de fibres, qui dégagent du gaz et/ou du vapeur pendant leur filage

Publication

EP 0581145 B2 20010718 (DE)

Application

EP 93111453 A 19930716

Priority

DE 4224707 A 19920725

Abstract (en)

[origin: EP0581145A2] A process is described for producing fibres from polymers which give off troublesome gases and/or vapours during spinning, comprising the steps of: a) extruding the molten polymer through a spinneret (dies) into a closed spinning shaft (chimney, cell), b) quenching the resulting filaments in the spinning shaft with a gas, c) withdrawing the resulting filaments from the spinning shaft, d) conducting the quench gas away from the spinning shaft and introducing it into a gas purification system and e) purifying the used quench gas by contact with an adsorbent for said troublesome gases and/or vapours. It is possible by the present invention to keep hazardous gases occurring during the spinning of polymers away from the surroundings and to dispose of them. Suitable polymers are in particular polyphenylene sulphides. The invention further relates to an adapted apparatus for carrying out the process according to the invention. The apparatus comprises an extruder (1), a spinning pump (2) and a spin pack (3) which contains a filter (4) and spinnerets (5). The spinnerets (5) open out directly into a closed spinning shaft (6) which is provided with at least one feedline (7) and one discharge line (8) for the quench gas. In the representation of Figure 1, two discharge lines (8) for the quench gas are depicted at the top and bottom end of the spinning shaft. In addition, in this Figure 1, an auxiliary extraction line (12) is furnished for the quench gas which is mounted at the bottom end of the spinning shaft next to the outlet orifice for the filaments. In the representation of Figure 1, all discharge lines for the quench gas are equipped with a gas purification system (9). <IMAGE>

IPC 1-7

D01D 5/092; **D01F 6/76**

IPC 8 full level

D01D 5/084 (2006.01); **D01D 5/092** (2006.01); **D01D 10/00** (2006.01); **D01F 6/76** (2006.01)

CPC (source: EP US)

D01D 5/092 (2013.01 - EP US); **D01F 6/765** (2013.01 - EP US)

Citation (opposition)

Opponent :

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KR100391706B1; DE19830453A1; US6146566A

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 0581145 A2 19940202; **EP 0581145 A3 19940810**; **EP 0581145 B1 19971008**; **EP 0581145 B2 20010718**; AT E159057 T1 19971015; DE 59307483 D1 19971113; DK 0581145 T3 19980518; DK 0581145 T4 20011112; ES 2110033 T3 19980201; ES 2110033 T5 20010901; GR 3025234 T3 19980227; JP H06158414 A 19940607; US 5370833 A 19941206

DOCDB simple family (application)

EP 93111453 A 19930716; AT 93111453 T 19930716; DE 59307483 T 19930716; DK 93111453 T 19930716; ES 93111453 T 19930716; GR 970402870 T 19971031; JP 18389693 A 19930726; US 9712193 A 19930726