Title (en)

COMPOSITE SPINNERET AND METHOD OF MANUFACTURING COMPOSITE FIBER

Title (de)

ZUSAMMENGESETZTE SPINNDÜSE UND VERFAHREN ZUR HERSTELLUNG VON VERBUNDFASERN

Title (fr)

FILIÈRE COMPOSITE ET PROCÉDÉ DE FABRICATION DE FIBRES COMPOSITES

Publication

**EP 2660369 A4 20150107 (EN)**

Application

**EP 11853367 A 20110722**

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Abstract (en)

[origin: EP2660369A1] An object is to provide, in the manufacture of islands-in-the-sea composite fibers, a composite spinneret which can prevent the island component polymer streams from joining with one another while increasing the hole packing density of the discharge holes for the island component polymer, and thereby, can form various fiber cross sections, particularly heteromorphic cross sections, with high accuracy while maintaining high dimensional stability of the cross section. The present invention provides a composite spinneret for discharging composite polymer streams composed of an island component polymer and a sea component polymer, which is composed of one or more distribution plates in which distribution holes and distribution grooves for distributing the polymer components are formed; and a lowermost layer distribution plate positioned to the downstream side of the distribution plate in the direction of the polymer spinning path, and having formed therein a plurality of island component discharge holes and a plurality of sea component discharge holes, wherein the sea component discharge holes are arranged on a virtual circular line C1 with a radius R1 centered on the island component discharge hole, the sea component discharge holes are arranged on a virtual circular line C2 with a radius R2 centered on the island component discharge hole, and the island component discharge holes are arranged on a virtual circular line C4 with a radius R4 centered on the island component discharge hole, and R1, R2 and R4 satisfy the following expression (1): (1) R #¢ 2 #¥ R #¢ 4 #¥ ## #¢ 3 × R #¢ 1 and each discharge hole has a predetermined arrangement.

IPC 8 full level

**D01D 4/06** (2006.01); **D01D 5/36** (2006.01)

CPC (source: EP)

**D01D 4/06** (2013.01); **D01D 5/36** (2013.01)

Citation (search report)

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Designated contracting state (EPC)

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