

Title (en)
METHOD FOR DYEING ARAMID FIBERS AND DYED ARAMID FIBERS

Title (de)
VERFAHREN ZUM FÄRBEN VON ARAMIDFASERN UND GEFÄRBTE ARAMIDFASERN

Title (fr)
PROCÉDÉ POUR LA TEINTURE DE FIBRES D'ARAMIDE ET FIBRES D'ARAMIDE TEINTÉES

Publication
EP 2692942 A4 20141001 (EN)

Application
EP 12763059 A 20120329

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Abstract (en)
[origin: EP2692942A1] This is to provide a method for dyeing aramid fibers and dyed aramid fibers, which method is a dyeing method which can be applied to either of the para-type aramid fibers, the para-type copolymerized aramid fibers and the meta-type aramid fibers, which can be dyed to a practical color depth required for developing new applications of the aramid fibers, and color unevenness, dimensional change, or lowering in physical properties are not generated so remarkably in the aramid fibers after dyeing, further, colorfastness of the dyed product, in particular, colorfastness to light is good. A method for dyeing aramid fibers which comprises a dye providing step in which a vat dye or a sulfur dye is provided to aramid fibers, a solvent treatment step in which the aramid fibers are treated by a treating solution containing a polar solvent, and after the solvent treatment step, a heat treatment step in which the aramid fibers are subjected to a heat treatment, if necessary, and having one or more dyeing operations comprising the combination of the respective steps dyeing operations.

IPC 8 full level
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Citation (search report)
• [XII] US 4710200 A 19871201 - CATES BARBARA J [US], et al
• [XII] US 6132476 A 20001017 - LUNSFORD CLYDE C [US], et al
• [X] US 4705527 A 19871110 - HUSSAMY SAMIR [US]
• [X] US 5427589 A 19950627 - HOLSTEN JOHN R [US], et al
• See references of WO 2012133662A1

Cited by
DE102015114501A1; EP3385418A4; US11118287B2

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