

Title (en)
Amination of cellulosic synthetic fibres

Title (de)
Aminierung von cellulosischen Synthesefasern

Title (fr)
Amination de fibres synthétiques cellulosiques

Publication
EP 0683251 B1 19980708 (DE)

Application
EP 95106357 A 19950427

Priority
• DE 4417211 A 19940517
• DE 4421740 A 19940622

Abstract (en)
[origin: EP0683251A1] Modified cellulosic synthetic fibres (I) are obtd. by: (a) treating a cellulose soln. with a modifier, and then (b) spinning fibres from the soln.; or by: (a) treating an alkali cellulose soln. with a modifier, then (b) xanthogenic treating and spinning fibres by the viscose process. The modifier is an amine of formula (1a), (1b), (1c), (1d) or (1e), or 2-oxo-1,3-oxazolidine, 4- or 5-aminomethyl-2-oxo-1,3-oxazolidine, 4- or 5-(trimethylammonium-methyl)-2-oxo-1,3-oxazolidine chloride, or 1-(trimethylammonium-methyl)-ethylene-carbonate chloride. (B)p-alk(OH)n(ER)m (1b) H₂N-alkylene-(ER)m (1c) ClCH₂-CH(OH)-CH₂-N<+>R<1>2R<2>Z<-> (1e) Z = H, 1-4C alkyl (opt. substd. with 1 or 2 OH gps.), or alkyl-(ER)m-; ER = ester gp.; A + N + 1 or 2 1-4C alkylene gps. = an heterocyclic ring; A = O, R-N<, R-CH< or R<1>R<2>N<+>Z<->; B = -NH₂, -NR<1>R<3> or -N<+>R<1>R<2>R<4>Z<->; R = H, amino, 1-6C alkyl (opt. substd. with 1 or 2 amino, sulpho, OH, sulphato, phosphato or COOH gps.), or 3-8C alkyl with 1 or 2 in-chain O or NH gps. (opt. substd. as before); R<1>, R<2>, R<4> = H, Me or Et; R<3> = Me or Et; Z<-> = anion; alkylene = 2-6C opt. branched alkylene (opt. substd. with 1 or 2 OH), or 3-8C alkylene with 1 or 2 in-chain O or NH gps.; Alk = 2-6C opt. branched alkylene, or 3-8C alkylene with 1 or 2 in-chain O or NH; m = 1 or 2; n = 1-4; p = 1 or 2; in these cpds., the amino, OH and ester gps. may be on prim., sec. or tert. C atoms of the alkylene gps. Also claimed is a process for the prodn. of dyed or printed textile materials from cellulosic fibres modified as above, by: (a) weaving or knitting the modified fibre, and then (b) dyeing or printing the fabric obtd. with anionic textile dye(s) in the absence of additional electrolyte salts or alkali.

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Cited by
US6955693B2; US6001995A; WO9637642A1; WO2007147773A3; EP3696317A1; WO2020165363A1

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