

Title (en)
CATIONIC DI-BENZENE DYEING AGENTS, USE FOR OXIDATION DYEING OF KERATIN FIBRES, DYEING COMPOSITIONS AND DYEING METHOD

Title (de)
KATIONISCHE DI-BENZOLFÄRBEMITTEL, DEREN ANWENDUNG ZUR OXYDATIVEN FÄRBUNG VON KERATINISCHEN FASERN, FÄRBEZUSAMMENSETZUNGEN UND VERFAHREN ZUR FÄRBUNG

Title (fr)
COLORANTS DI-BENZENIQUES CATIONIQUES, LEUR UTILISATION POUR LA TEINTURE D'OXYDATION DES FIBRES KERATINIQUES, COMPOSITIONS TINCTORIALES ET PROCEDE DE TEINTURE

Publication
EP 1064278 A1 20010103 (FR)

Application
EP 00900599 A 20000118

Priority
• FR 0000094 W 20000118
• FR 9900502 A 19990119

Abstract (en)
[origin: FR2788519A1] Cationic di-benzene colorants are new. Cationic di-benzene colorants (claimed together with their acid-addition salts) have formula (I); B = (preferably 1-14C) linear or branched alkyl chain, which may be interrupted with one or more groups Z and/or one or more heteroatoms (N, O or S), and optionally substituted with one or more hydroxyl or 1-6C alkoxy radicals, and may have ketone group(s); A1-A3 = NR7R8 or hydroxyl radical; one and only one of them may be R3; A1'-A3' = same or different NR7'R8' or hydroxyl radical; one and only one of them may be R3'; R1-R3 and R1'-R3' = one of two valencies of B, H, halogen atom, group Z, 1-6C alkyl radical, (1-6C)alkyl carbonyl-, amino(1-6C)alkyl carbonyl-, N-Z-amino-(1-6C) alkylcarbonyl-, N-(1-6C)alkyl-amino-(1-6C) alkylcarbonyl- etc.; R6 and R6' = 1-6C alkyl radical, mono- hydroxy (1-6C) alkyl, polyhydroxy (2-6C) alkyl, group Z, aryl (or benzyl) radical, trifluoro-, mono(or poly)- hydroxy-, (1-6C)-alkoxy-, cyano-, carbamyl-, N-(or N,N) (1-6C)-(di) alkylcarbonyl- radicals, thiocarbamyl-, cyano-, carbamyl, N-(1-6C)alkyl-carbamyl etc.; R4-R8 and R4'-R8' = one of two valencies of B, or H, or Z where D contains no ketone group directly linked to amine N atom; or 1-6C alkyl radical, mono- hydroxy (1-6C) alkyl, polyhydroxy (2-6C) alkyl, aryl (or benzyl) radical, trifluoro-, sulfo-, thiocarbamyl-, cyano-, carbamyl, N-(1-6C)alkyl-carbamyl; etc.; Z = unsaturated cationic groups of formula (II) and (III), or saturated cationic groups of formula (IV); D = (preferably 1-14C) linear or branched alkyl chain, which may be interrupted with one or more heteroatoms (N, O or S) and substituted with one or more hydroxyl or 1-6C alkoxy radicals, and may have one or more ketone groups; E, G, J, L and M = C, O, S or N atom; n = 0-4; m = 0-5; R = one of two valencies of B, second group Z identical or different to first, halogen atom, hydroxyl radical, (1-6C) alkyl-, mono (or poly) hydroxy-, or cyano- (1-6C)alkyl radicals, nitro-, cyano-, 1-6C alkoxy-, tri(1-6C) silane (1-6C) alkyl-, amido-, aldehydo-, carboxyl-, thio-, (1-6C) alkyl carbonyl-, thio-(1-6C) alkyl-, (1-6C)alkyl-thio- and amino- radicals, with amino- radical protected with (1-6C)alkyl carbonyl- (or carbamyl, or sulfonyl) radicals, or groups NHR'' or NR''R'''; R'', R''' = (1-6C) alkyl radical, monohydroxy (1-6C) alkyl- or polyhydroxy (2-6C) alkyl- radical; R9 = one of two valencies of B, (1-6C) alkyl radical, monohydroxy (1-6C) alkyl- or polyhydroxy (2-6C) alkyl- radical, benzyl radical, cyano-, tri(1-6C)alkyl silane-, alkoxy, carbamyl or (1-6C) alkyl carboxy- (1-6C) alkyl radical; or second Z group identical or different from the first; R10-R12 = one of two valencies of B, (1-6C) alkyl radical, monohydroxy (1-6C) alkyl or polyhydroxy (2-6C) alkyl- radical, (1-6C) alkoxy-, cyano-, amido- or tri(1-6C)alkyl silane- (1-6C) alkyl radical, or amino-(1-6C)alkyl radical with amine protected by (1-6C) alkyl sulfonyl- or amido-, carboxy- or carbonyl- radical, or two of R10-R12 radicals may form with N atom 5-6 links saturated cycle which may contain one or more hetero-atoms and may be substituted with halogen, hydroxyl radical, (1-6C) alkyl radical, monohydroxy (1-6C) alkyl- or polyhydroxy (2-6C) alkyl- radical, 1-6C alkyl-thio- or alkoxy-, nitro-, cyano-, amido-, aldehydo-, carboxyl- or thio- radical, or cyano-, keto-, thio-, or tri-(1-6C)alkyl silane- (1-6C)alkyl radical, or amine radical, protected with (1-6C)alkyl carbonyl- (or sulfonyl) radical, or one of R10-R12 may represent second Z group identical or different from the first; R13 = one of two valencies of B, (1-6C) alkyl radical, monohydroxy (1-6C) alkyl- or polyhydroxy (2-6C) alkyl- radical, aryl or benzyl radical, amino-(1-6C) alkyl radical with amine optionally protected with (1-6C)alkyl carbonyl- (or sulfonyl)- radical; or carboxy-, cyano-, carbamyl-, trifluoro-, tri(1-6C)alkyl silane-, sulfonamido-, (1-6C) alkyl carboxy-, (1-6C)alkyl sulfinyl- (or sulfonyl-, or keto-), or N-(1-6C)alkyl carbamyl- (or sulfonamido-) (1-6C) alkyl radical; X = monovalent or divalent anion; a, y = 0-1. The full definitions are given in DEFINITIONS (Full Definitions) field. Independent claims are also included for: (1) the use of compounds (I) as oxidation-colorant precursors in oxidation-dyeing of keratin fibers; (2) composition A for oxidation-dyeing of keratin fibres, containing oxidation-colorant precursor in form of at least one compound (I), in amount 0.0005-12 (preferably 0.005-6) wt.%, and also 0.0005-12 wt.% of one or more oxidation bases, and 0.0001-10 wt.% of one or more couplers and/or one or more direct colorants; (3) process of oxidation-dyeing of keratin fibers (especially of human hair), comprising application of composition as claimed, for a period necessary to develop desired color, which is produced in result of contact with air oxygen, or (at acidic, neutral or alkaline pH) with the aid of oxidant-agent added at the application stage or present in oxidant composition B applied simultaneously or in sequence, separately from composition A; (4) dyeing kit with separate compartments of which the first contains dye composition A as claimed and the second oxidant composition B.

IPC 1-7
C07D 403/06; C07D 233/54; C07C 211/51; C07C 211/53; A61K 7/13; D06P 1/32

IPC 8 full level
C07D 233/61 (2006.01); **A61K 8/00** (2006.01); **A61K 8/22** (2006.01); **A61K 8/30** (2006.01); **A61K 8/33** (2006.01); **A61K 8/41** (2006.01); **A61K 8/49** (2006.01); **A61K 8/66** (2006.01); **A61K 8/72** (2006.01); **A61Q 5/10** (2006.01); **C07C 211/51** (2006.01); **C07C 211/53** (2006.01); **C07C 211/63** (2006.01); **C07D 233/00** (2006.01); **C07D 233/54** (2006.01); **C07D 233/64** (2006.01); **C07D 403/06** (2006.01); **D06P 1/32** (2006.01); **D06P 3/08** (2006.01)

CPC (source: EP)
A61K 8/411 (2013.01); **A61K 8/4946** (2013.01); **A61Q 5/10** (2013.01); **C07C 211/50** (2013.01); **C07D 233/61** (2013.01)

Citation (search report)
See references of WO 0043386A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
FR 2788519 A1 20000721; AU 3055500 A 20000807; CA 2322998 A1 20000727; EP 1064278 A1 20010103; JP 2002535324 A 20021022; WO 0043386 A1 20000727

DOCDB simple family (application)

FR 9900502 A 19990119; AU 3055500 A 20000118; CA 2322998 A 20000118; EP 00900599 A 20000118; FR 0000094 W 20000118;
JP 2000594802 A 20000118