

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

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Application  
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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.

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