



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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| (51) International Patent Classification <sup>6</sup> :<br>D06P 1/52, 3/66                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | A1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | (11) International Publication Number: WO 98/37270<br>(43) International Publication Date: 27 August 1998 (27.08.98) |
| <p>(21) International Application Number: PCT/GB98/00499</p> <p>(22) International Filing Date: 18 February 1998 (18.02.98)</p> <p>(30) Priority Data:<br/>9703813.7 24 February 1997 (24.02.97) GB</p> <p>(71) Applicant (for all designated States except US): IMPERIAL CHEMICAL INDUSTRIES PLC [GB/GB]; Imperial Chemical House, Millbank, London SW1P 3JF (GB).</p> <p>(72) Inventors; and<br/>(75) Inventors/Applicants (for US only): COLLINS, Geoffrey, William [GB/GB]; 6 Robert Drive, Greasby, Wirral L49 1SD (GB). BURKINSHAW, Stephen, Martin [GB/GB]; Hillside, Harwood Road, Collingham, Wetherby LS22 5BY (GB). GORDON, Roy [GB/GB]; 30 Riverslea, Stokesley, Middlesbrough, Cleveland TS9 5DE (GB).</p> <p>(74) Agents: ROBERTS, Jonathan, Winstanley et al.; ICI Group Intellectual Property, P.O. Box 90, Wilton, Cleveland TS90 8JE (GB).</p>                                                                                                                                                                                                      | <p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p>Published<br/>With international search report.</p> |                                                                                                                      |
| <p>(54) Title: DYEING OF TEXTILES</p> <p>(57) Abstract</p> <p>Cellulosic materials are dyed with reactive dye by pretreating the fabric with a polycationic polymeric agent which is desirably also polynucleophilic. The agent can be a polyquaternary amine material especially a poly(DADMAC) or polyvinylpyridine, particularly one including nucleophilic sites such as primary amino groups, e.g. polyallylamine/DADMAC copolymers and polyvinylpyridines quaternised with <math>\omega</math>-aminoalkyl groups. The dyes can react with the nucleophilic centres so dyebath exhaustion can be driven by dye fixation rather than substantivity to the substrate. The need to use of salts to drive substantivity can be obviated and post dyeing washing to remove unreacted/hydrolysed dye is much simplified. Material dyed by the method has the good wash fastness properties of materials dyed using reactive dyes. A wide variety of cellulosic substrates can be dyed including lyocell fibre materials and blend/union materials with polyamides.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                      |