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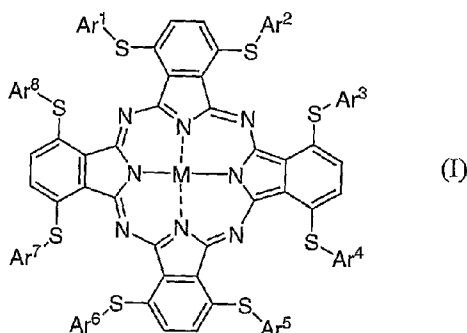
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(54) Title: RED-SHIFTED WATER-DISPERSIBLE IR DYES



(57) Abstract: A phthalocyanine dye of formula (I) is provided; wherein M is a metal group or is absent; Ar¹, Ar², Ar³, Ar⁴, Ar⁵, Ar⁶, Ar⁷ and Ar⁸ are selected from phenyl, naphthyl, pyridyl, furanyl, pyrrolyl or thiophenyl, each of Ar¹, Ar², Ar³, Ar⁴, Ar⁵, Ar⁶, Ar⁷ and Ar⁸ being optionally substituted with 1, 2, 3, 4 or 5 groups, the or each group being independently selected from C₁₋₁₂ alkyl, C₁₋₁₂ alkoxy, C₁₋₁₂ arylalkyl, C₁₋₁₂ arylalkoxy, (OCH₂CH₂)_dOR^d, cyano, halogen, amino, hydroxyl, thiol, -SR^v, -NR^vR^v, nitro, phenyl, phenoxy, -CO₂R^v, -C(O)R^v, OCOR^v, SO₂R^v, OSO₂R^v, NHC(O)R^v, CONR^vR^v, CONR^vR^v, sulfonic acid, sulfonic acid salt and sulfonamide; d is an integer from 2 to 5000; R^d is H, C₁₋₈ alkyl or C(O)C₁₋₈ alkyl; R^u and R^v are independently selected from hydrogen, C₁₋₁₂ alkyl, phenyl or phenyl-C₁₋₈ alkyl; wherein at least one of Ar¹, Ar², Ar³, Ar⁴, Ar⁵, Ar⁶, Ar⁷ and Ar⁸ is substituted with a sulfonic acid, a sulfonic acid salt or a sulfonamide group. Dyes of this type are especially suitable for use in netpage and Hyperlabel™ systems.

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