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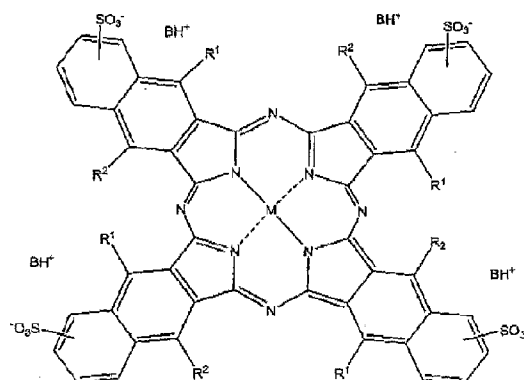
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(54) Title: GALLIUM NAPHTHALOCYANINE SALTS FOR USE AS IMPROVED INFRARED DYES



(I)

(57) Abstract: There is provided an IR-absorbing naphthalocyanine dye of formula (I): wherein M is Ga(A₁); A₁ is an axial ligand selected from -OH, halogen, -OR₃, -OC(O)R₄ or -O(CH₂CH₂O)_eR₆ wherein e is an integer from 2 to 10 and R₆ is H, C₁₋₈ alkyl or C(O)C₁₋₈ alkyl; R₁ and R₂ may be the same or different and are selected from hydrogen or C₁₋₁₂ alkoxy; R₃ is selected from C₁₋₁₂ alkyl, C₅₋₁₂ aryl, C₅₋₁₂ arylalkyl or Si(R_x)(R_y)(R_z); R₄ is selected from C₁₋₁₂ alkyl, C₅₋₁₂ aryl or C₅₋₁₂ arylalkyl; R_x, R_y and R_z may be the same or different and are selected from C₁₋₁₂ alkyl, C₅₋₁₂ aryl, C₅₋₁₂ arylalkyl, C₁₋₁₂ alkoxy, C₅₋₁₂ aryloxy or C₅₋₁₂ arylalkoxy, and each B is independently selected from a base, wherein BH₄⁺ has a pK_a of between 4 and 9. The dye is particularly suitable for use in IR-absorbing inkjet inks, providing compatibility with known CMYK inks together with an optimally red-shifted λ_{max}.

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