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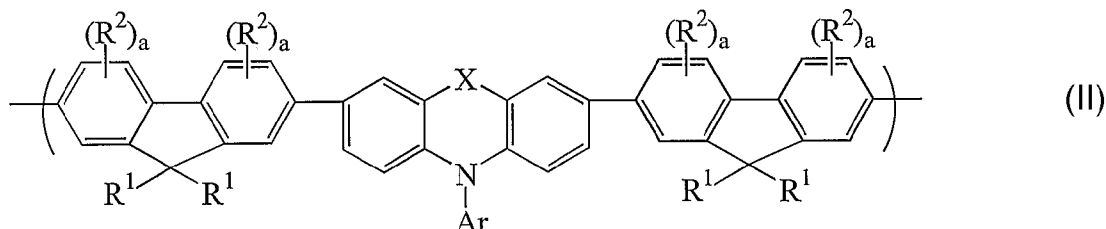
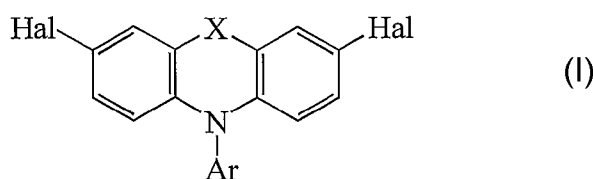
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(54) Title: TRICYCLIC ARYLAMINE MONOMER AND POLYMERS AND DEVICES THEREOF



(57) Abstract: The present invention relates to a compound of the formula (I) wherein X is O, S, SO₂, C(R³)₂, N-R³, or Si(R³)₂ wherein R³ is substituted or unsubstituted C₆ to C₄₀ aryl, C₆ to C₂₄ alkyl, or C₁ to C₂₄ alkyl; and Ar is substituted or unsubstituted C₆ to C₄₀ aryl or heteroaryl; and Hal is Br, Cl, or I. The compound is useful as a precursor for a semiconducting polymer that contains repeat units of the formula (II). The polymer is useful as an interlayer for electroluminescent devices and field effect transistors. The inclusion of a tricyclic arylamine in the main chain of a fluorene based optoelectronic polymer provides improved conductivity at low voltages as well as higher device efficiency compared to polyfluorenes having other charge transporting groups such as acyclic triarylamine.



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