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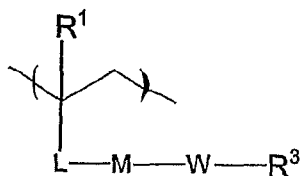
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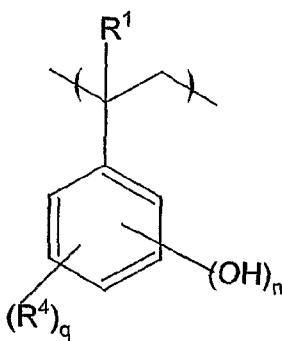
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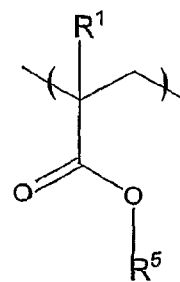
(54) Title: THERMALLY CURED UNDERCOAT FOR LITHOGRAPHIC APPLICATION



(II)



(III)



(IV)

(57) **Abstract:** Thermally curable undercoat composition comprising for producing a bilayer relief image comprising a) a polymer of Structure (I) comprising repeating units of Structure (II), (III), and (IV) wherein each R¹ is independently a hydrogen atom or an alkyl group having from 1 to 3 carbon atoms or a halogen atom; L represents a single bond, a -COO- group, or a -CON(R²)- group; R² represents a hydrogen atom or an alkyl group having from 1 to 3 carbon atoms; M represents a C₅₋₇ cycloalkylene group or an arylene group having from 6 to 18 carbon atoms; W represents a single bond, a -COO- group, -O-, -(C=O)-, or -(SO₂)-; R³ represents a hydrogen atom or a linear unsubstituted or substituted alkyl having from 5 to 30 carbon atoms or an unsubstituted or substituted cycloalkyl group having from 5 to 30 carbon atoms, a bridged unsubstituted or substituted alicyclic hydrocarbon group having from 5 to 25 carbon atoms or an unsubstituted or substituted aryl group having from 6 to 18 carbon atoms or an arylalkyl group having from 7 to 18 carbon atoms; n is an integer from 1 to 3, q is an integer from 0 to 3, the sum of n and q being no greater than 5; R⁴ is a linear or branched or cyclic C₁ - C₁₀ alkyl or a halogen group; R⁵ is an alkyl or branched alkyl or cyclic alkyl or an unsubstituted or substituted alicyclic group, having 5 to 30 carbon atoms or (R⁶)_tR⁷ group where R⁶ is a C₁₋₁₀ linear or branched alkylene group and R⁷ is linear, branched or cyclic alkyl or an unsubstituted or substituted alicyclic group or an unsubstituted or substituted aromatic or alicyclic group having 1 to 30 carbon atoms and t is an integer about 1 to 4; b) a phenolic crosslinker; c) a thermal acid generator (TAG); and d) a solvent.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.