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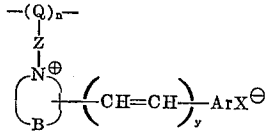
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PHOTOSENSITIVE POLYMERS

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No Drawing. 7 Pages Specification

There are disclosed light-sensitive polymers containing recurring groups having the formula



wherein Q is a unit in the parent polymer chain (e.g., $-CH_2CH-$) Z is an organic residue comprising one or more atoms, $X^{\ominus}$ is an anion, y equals 1 or 2, —Ar is an aromatic or a heterocyclic group , and B represents the atoms necessary to complete a 5 to 6 membered heterocyclic ring. Such polymers are prepared, for example, by reacting a polymer containing a plurality of hydroxyl groups, such as poly(vinyl alcohol), with a C-vinylheterocyclic quaternary salt containing on the quaternary nitrogen atom a chain of atoms terminated by an isocyanate group; or by the reaction of a parent polymer having a multiplicity of side chains bearing functional groups capable of quaternizing tertiary nitrogen atoms, with C-vinylheterocyclic compounds containing tertiary nitrogen atoms. Examples of the polymers given are poly(1-vinyloxycarbonylmethylene - 4' - methoxy - 4 - stilbazolium chloride); poly(1 - vinyloxycarbonylmethylene - 2 - stilbazolium chloride); poly(1 - vinyloxycarbonylmethylene - 4 - stilbazolium chloride; a polymer obtained by the reaction of poly(vinyl alcohol) and 1-(2-isocyanatoethyl)-4'-methoxy-4-stilbazolium chloride); and a polymer obtained by the reaction of polyvinyl alcohol with 1-(3-isocyanatopropionyl)-4'-methoxy-4-stilbazolium bromide. The light-sensitive polymers are useful in photomechanical reproduction processes such as for lithographic purposes or as photoresists.