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(54) Title: NOVOLAK RESIN MIXTURES AND PHOTSENSITIVE COMPOSITIONS COMPRISING THE SAME

(57) Abstract: Disclosed is an alkali-soluble, film-forming novolak resin mixture containing at least two novolak resins, each novolak resin containing the addition- condensation reaction product of at least one phenolic compound with at least one aldehyde source, wherein the phenolic compound for first novolak resin contains 90-100 mole% of meta-cresol, and the phenolic compound for the second novolak resin contains less than 50 mole% of meta-cresol. Also disclosed is a photosensitive composition, containing an admixture of: a) the above-mentioned novolak resin mixture; b) at least one o-quinone photoactive compound; and c) at least one photoresist solvent. Also disclosed is a method for producing a microelectronic device by forming an image on a substrate, which involves: a) providing the above-mentioned photosensitive composition; b) thereafter, coating a suitable substrate with the photoresist composition from step a); c) thereafter, heat treating the coated substrate until substantially all of the solvent is removed; d) image-wise exposing the coated substrate; and then removing the imagewise exposed or, alternatively, the unexposed areas of the coated substrate with a suitable developer.