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(54) Title: SPIN-ON CARBON COMPOSITIONS FOR LITHOGRAPHIC PROCESSING

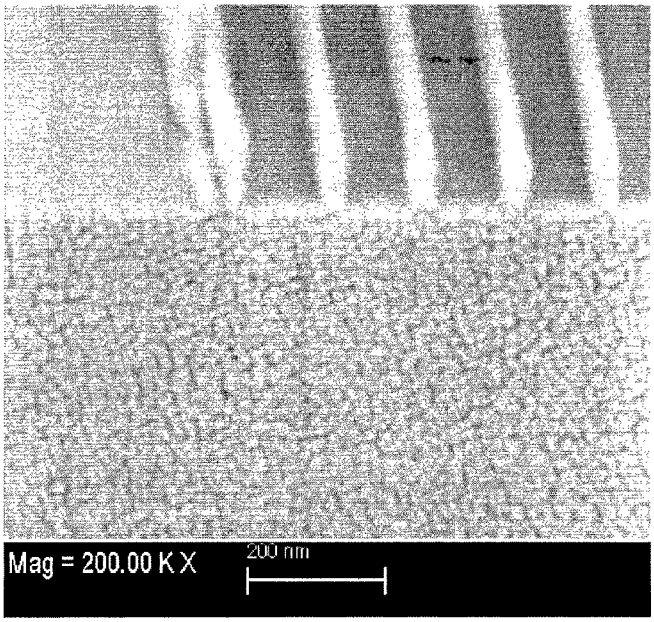


FIG. 3

(57) Abstract: The invention described herein is directed towards spin-on carbon materials comprising polyamic acid compositions and a crosslinker in a solvent system. The materials are useful in trilayer photolithography processes. Films made with the inventive compositions are not soluble in solvents commonly used in lithographic materials, such as, but not limited to PGME, PGMEA, and cyclohexanone. However, the films can be dissolved in developers commonly used in photolithography. In one embodiment, the films can be heated at high temperatures to improve the thermal stability for high temperature processing. Regardless of the embodiment, the material can be applied to a flat/planar or patterned surface. Advantageously, the material exhibits a wiggling resistance during pattern transfer to silicon substrate using fluorocarbon etch.

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