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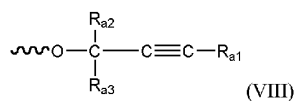
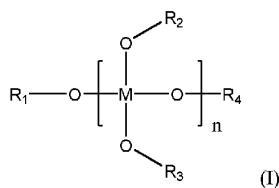
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(54) Title: SPIN-ON COMPOSITIONS COMPRISING AN INORGANIC OXIDE COMPONENT AND AN ALKYNIOXY
SUBSTITUTED SPIN-ON CARBON COMPONENT USEFUL AS HARD MASKS AND FILLING MATERIALS WITH IM-
PROVED SHELF LIFE



(57) Abstract: The present invention relates to a composition comprising: components a) b) and d); wherein, component a) is a metal compound having the structure (I), component b) is a spin on high carbon polymer, having a polymer backbone comprising mono-cyclic aromatic hydrocarbon, fused-ring ring hydrocarbon moieties, or mixtures of these, having a wt. % of carbon from about 81 wt. % to about 94 wt. %, which is soluble to at least about 5 wt. % in a spin casting solvent, and wherein at least one, of said mono-cyclic aromatic hydrocarbon or said fused-ring ring hydrocarbon moieties, present in said spin on high carbon polymer, is functionalized with at least one alkynioxy moiety of structure (VIII), and component d) is a spin casting solvent. The present invention further relates to using this composition in methods for manufacturing electronic devices through either the formation of a patterned films of high K material comprised of a metal oxide on a semiconductor substrate, or through the formation of patterned metal oxide comprised layer overlaying a semiconductor substrate which may be used to selectively etch the semiconductor substrate with a fluorine plasma.



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