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(54) Title: SILICON CONTAINING BLOCK COPOLYMERS FOR DIRECT SELF-ASSEMBLY APPLICATION



Figure 1 a

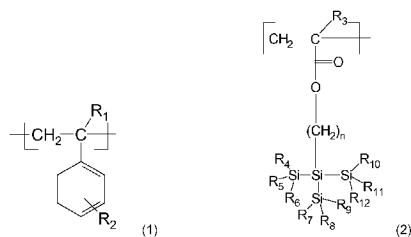


Figure 1 b



Figure 1 c

(57) Abstract: The present invention relates to a novel diblock copolymer comprising a repeat unit (1) and a repeat unit (2), where R_1 is hydrogen or C_1 - C_4 alkyl, R_2 is selected from a group chosen from hydrogen, C_1 - C_4 alkyl, C_1 - C_4 alkoxy and halide, R_3 is selected from a group chosen from hydrogen, C_1 - C_4 alkyl and C_1 - C_4 fluoroalkyl, and R_4 , R_5 , R_6 , R_7 , R_8 , R_9 , R_{10} , R_{11} , and R_{12} are independently chosen from a C_1 - C_4 alkyl and $n=1-6$. The invention also relates to a novel composition comprising the novel polymer and a solvent. The invention further relates to a process utilizing the novel composition for affecting directed self-assembly of the block copolymer.





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