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(54) Title: TUNABLE HIGH-CHI DIBLOCK COPOLYMERS CONSISTING OF ALTERNATING COPOLYMER SEGMENTS FOR DIRECTED SELF-ASSEMBLY AND APPLICATION THEREOF

(57) Abstract: The disclosed subject matter relates to a block polymer comprising structure (1): (A)-(C)-(B), wherein (A) is a first polymer block segment comprising a block segment selected from structure (1a), structure (1b), and a mixture of structures (1a) and (1b), (C) is a spacer moiety comprising structure (1c); and wherein (B) is a second polymer block segment comprising repeat units derived from either an alkyl 2-methylenealkanoate, a lactone; a cyclic carbonate, an oxirane, or an oxetane. The disclosed matter also pertains to a composition of said block polymer in a spin casting solvent and using this solution in a process of directed self-assembly.