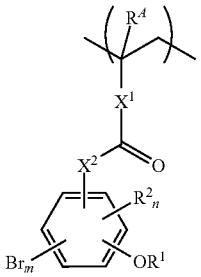
(a)

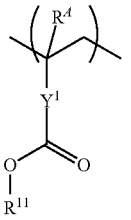


Herein R^A is hydrogen or methyl, R^1 is hydrogen or an acid labile group, R^2 is a C_1-C_6 straight, branched or cyclic alkyl group or halogen other than bromine, X^1 is a single bond, phenylene group, or a C_1-C_{12} straight, branched or cyclic alkylene group which may contain an ester moiety or lactone ring, X^2 is —O—, —O—CH_2— or —NH—, m is an integer of 1 to 4, preferably 2 to 4, and n is an integer of 0 to 3.

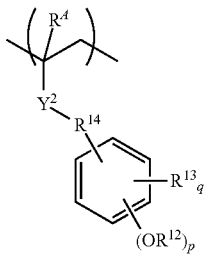
[0017] The polymer may further comprise recurring units having a group capable of polarity switch under the action of acid. The polarity switch under the action of acid takes place by elimination reaction.

[0018] Preferably the recurring units having a group capable of polarity switch under the action of acid have the formula (b1) or (b2).

(b1)



(b2)

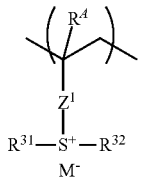


Herein R^A is each independently hydrogen or methyl, R^{11} and R^{12} are each independently an acid labile group, R^{13} is fluorine, trifluoromethyl, cyano, a C_1-C_6 straight, branched or cyclic alkyl or alkoxy group, or a C_2-C_7 straight, branched or cyclic acyl, acyloxy or alkoxycarbonyl group, R^{14} is a single bond or a C_1-C_6 straight or branched alkylene group in which at least one carbon atom may be substituted by an ether or ester moiety, p is 1 or 2, q is an integer of 0 to 4, Y^1 is a single bond, phenylene group, naphthylene group, or a C_1-C_{12} linking group which may contain an ester moiety, ether moiety or lactone ring, and Y^2 is a single bond, —C(═O)—O— or —C(═O)—NH—.

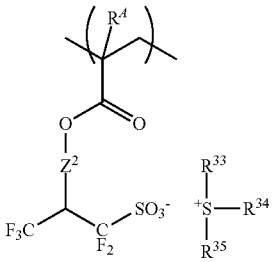
[0019] The polymer may further comprise recurring units having an adhesive group selected from among hydroxyl, carboxyl, lactone ring, carbonate, thiocarbonate, carbonyl, cyclic acetal, ether, ester, sulfonic acid ester, cyano, amide, and —O—C(═O)-G- wherein G is —S— or —NH—.

[0020] The polymer may further comprise recurring units of at least one type selected from the formulae (d1) to (d3).

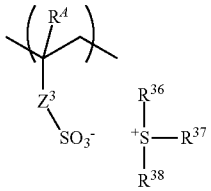
(d1)



(d2)



(d3)



Herein R^A is each independently hydrogen or methyl; Z^1 is a single bond, phenylene group, —O—Z^{12}—, or —C(═O)—Z^{11}—, Z^{12}—, Z^{11} is —O— or —NH—, Z^{12} is a C_1-C_6 straight, branched or cyclic alkylene group, C_2-C_6 straight, branched or cyclic alkenylene group, or phenylene group, which may contain a carbonyl, ester, ether or hydroxyl moiety; R^{31} to R^{38} are each independently a C_1-C_{12} straight, branched or cyclic alkyl group which may contain a carbonyl, ester or ether moiety, or a C_6-C_{12} aryl group or C_7-C_{20} aralkyl group, in which at least one hydrogen may be substituted by a C_1-C_{10} straight, branched or cyclic alkyl moiety, halogen, trifluoromethyl, cyano, nitro, hydroxyl, mercapto, C_1-C_{10} straight, branched or cyclic alkoxy moiety, C_2-C_{10} straight, branched or cyclic alkoxycarbonyl moiety, or C_2-C_{10} straight, branched or cyclic acyloxy moiety; Z^2 is a single bond, a C_1-C_{12} straight, branched or cyclic alkylene group or C_2-C_{12} straight, branched or cyclic alkenylene group which may contain an ether moiety, ester moiety or lactone ring, or C_6-C_{10} arylene group; Z^3 is a single bond, methylene, ethylene, phenylene, fluorinated phenylene, —O—Z^{32}—, or —C(═O)—Z^{31}-Z^{32}-, Z^{31} is —O— or —NH—, Z^{32} is a straight, branched or cyclic C_1-C_{12} alkylene or C_2-C_{12} alkenylene group which may contain a carbonyl, ester or ether moiety, or phenylene group, in which at least one hydrogen atom may be substituted by fluorine or hydroxyl; and M^- is a non-nucleophilic counter ion.

[0021] The resist composition may further comprise an organic solvent, acid generator, basic compound, and/or surfactant.