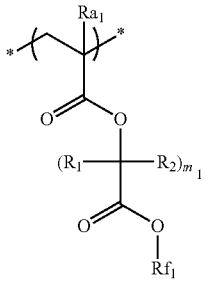
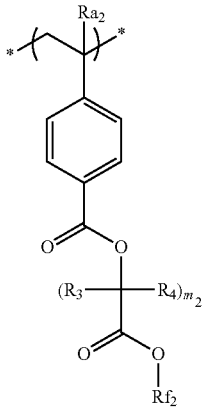
(aa1-2-2)



(aa1-3-2)



In General Formulas (aa1-2-2) and (aa1-3-2), Ra_1 and Ra_2 each independently represent a hydrogen atom or an alkyl group.

R_1, R_2, R_3, and R_4 each independently represent a hydrogen atom or an alkyl group.

m_1 and m_2 each independently represent an integer of 0 to 5.

Rf_1 and Rf_2 each independently represent an organic group which has a fluorine atom.

Ra_1 and Ra_2 are preferably a hydrogen atom or a methyl group.

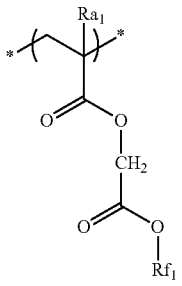
An alkyl group which is represented by R_1, R_2, R_3, and R_4 is preferably, for example, a straight-chain or branched chain alkyl group with 1 to 10 carbon atoms. The alkyl group may have a substituent group and examples of the substituent group include an alkoxy group, an aryl group, a halogen atom, and the like.

m_1 and m_2 are preferably an integer of 0 to 3, more preferably 0 or 1, and most preferably 1.

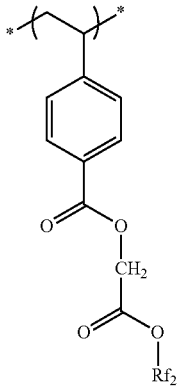
The organic group which has a fluorine atom as Rf_1 and Rf_2 is the same as Rf in General Formula (aa1-1).

In addition, in one aspect, the repeating unit (γ) is preferably a repeating unit which is represented by General Formula (aa1-2-3) or (aa1-3-3) below.

(aa1-2-3)



(aa1-3-3)



In General Formulas (aa1-2-3) and (aa1-3-3), Ra_1 represents a hydrogen atom or a methyl group.

Rf_1 and Rf_2 each independently represent an organic group which has a fluorine atom and are the same as Rf in General Formula (aa1-1).

Specific examples of the repeating unit (γ) will be shown below; however, the present invention is not limited thereto.