alkyl group for R', the same alkyl groups, alkoxy groups, halogen atoms, halogenated alkyl groups, —COOR", —OC(=O)R" (R" is the same as defined above) and hydroxyalkyl groups as those described above as the substituent for the —SO_2— containing cyclic group can be mentioned.

As the alkyl group for R', an alkyl group of 1 to 5 carbon atoms is preferable, and examples thereof include a methyl group, an ethyl group, a propyl group, an n-butyl group and a tert-butyl group.

As the alkoxy group for R', an alkoxy group of 1 to 5 carbon atoms is preferable, and examples thereof include a methoxy group, an ethoxy group, an n-propoxy group, an iso-propoxy group, an n-butoxy group and a tert-butoxy group

In terms of industrial availability, R' is preferably a hydrogen atom.

The alkyl group for R" may be any of linear, branched or cyclic.

When R" is a linear or branched alkyl group, it preferably has 1 to 10 carbon atoms, more preferably 1 to 5 carbon atoms.

When R" is a cyclic alkyl group (cycloalkyl group), it preferably has 3 to 15 carbon atoms, more preferably 4 to 12 carbon atoms, and most preferably 5 to 10 carbon atoms. As examples of the cycloalkyl group, groups in which one or more hydrogen atoms have been removed from a monocycloalkane or a polycycloalkane such as a bicycloalkane, tricycloalkane or tetracycloalkane, which may or may not be substituted with a fluorine atom or a fluorinated alkyl group, may be used. Examples of such groups include groups in which one or more hydrogen atoms have been removed from a monocycloalkane such as cyclopentane or cyclohexane; and groups in which one or more hydrogen atoms have been removed from a polycycloalkane such as adamantane, norbornane, isobornane, tricyclodecane or tetracyclododecane.

As examples of A", the same groups as those described above for A' in general formula (3-1) can be given. A" is preferably an alkylene group of 1 to 5 carbon atoms, an oxygen atom (—O—) or a sulfur atom (—S—), and more preferably an alkylene group of 1 to 5 carbon atoms or —O—. As the alkylene group of 1 to 5 carbon atoms, a methylene group or a dimethylethylene group is preferable, and a methylene group is particularly desirable.

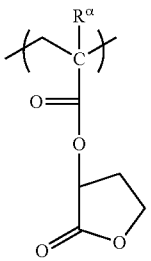
R^{29} is the same as defined for R^{29} in the aforementioned general formula (a2-0).

In formula (a2-1), s" is preferably 1 or 2.

Specific examples of structural units represented by general formulas (a2-1) to (a2-5) are shown below. In the formulas shown below, R^{α} represents a hydrogen atom, a methyl group or a trifluoromethyl group.

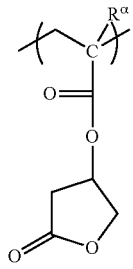
[Chemical Formula 64]

(a2-1-1)

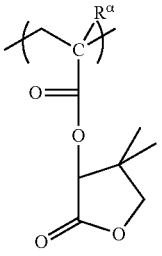


-continued

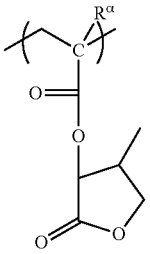
(a2-1-2)



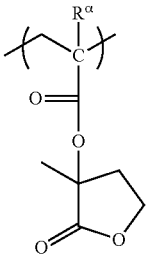
(a2-1-3)



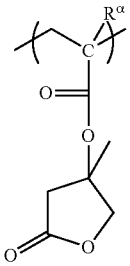
(a2-1-4)



(a2-1-5)



(a2-1-6)



(a2-1-7)