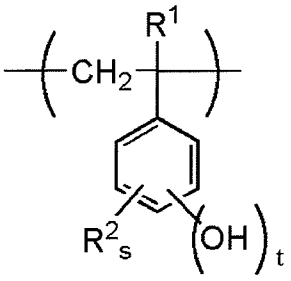
CHEMICALLY-AMPLIFIED POSITIVE RESIST COMPOSITION AND PATTERNING PROCESS THEREOF

ABSTRACT

There is disclosed a chemically-amplified positive resist composition comprising, as main components, (A) a base polymer, which contains one or more kinds of a monomer unit represented by the following general formula (1) and the like, and is an alkali-insoluble polymer whose hydroxyl group is partly protected by an acetal group while alkali-soluble when deprotected by an acid catalyst, (B) a sulfonium salt containing a sulfonate anion, (C) a basic component, and (D) an organic solvent. In a lithography technology by a photo resist, an extremely high temporal stability is necessary. In addition, it must give a good pattern profile not dependent on a substrate and have a high resolution power. There can be provided a chemically-amplified positive resist composition which can solve these problems simultaneously, a resist patterning process using the same, and a method for producing a photo mask blank.



(1)

Figure: 1