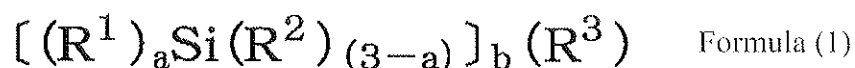


COMPOSITION FOR FORMING RESIST UNDERLAYER FILM, CONTAINING SILICON THAT BEARS DIKETONE-STRUCTURE-CONTAINING ORGANIC GROUP

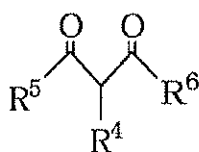
5

ABSTRACT

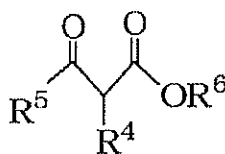
There is provided a composition for forming a lithographic resist underlayer film to form a resist underlayer film usable as a hard mask. A composition for forming a lithographic resist underlayer film, comprising, as a silane, a hydrolyzable organosilane, a hydrolysate thereof, or a hydrolytic condensate thereof, wherein the silane includes a hydrolyzable organosilane of Formula (1) below:



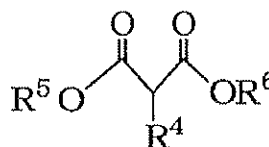
[where R^3 is a group of Formula (2), (3), or (4):



Formula (2)



Formula (3)



Formula (4)

(in Formulae (2), (3), and (4), at least one from among R^4 , R^5 , and R^6 is a group bonded to a silicon atom directly or through a linking group.), R^1 is an alkyl group, an aryl group, an aralkyl group, an alkyl halide group, an aryl halide group, an aralkyl halide group, an alkenyl group, or an organic group having an epoxy group, an acryloyl group, a methacryloyl group, a mercapto group, an amino group, or a cyano group, or a combination thereof, R^2 is an alkoxy group, an acyloxy group, or a halogen atom].

No Fig.