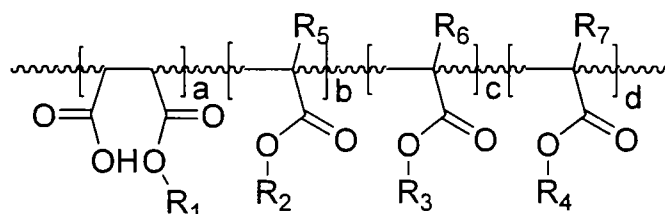


ABSTRACT

Copolymer for gap filling material composition, preparation method thereof and gap filling material composition for antireflective coating layer

A copolymer for a gap filling material, as expressed in Chemical Formula 1 below,

[Chemical Formula 1]



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wherein R_1 , R_2 , R_3 , R_4 , R_5 , R_6 , and R_7 are independent from each other, R_1 is hydrogen or a C1-10 alkyl group, each of R_2 , R_3 , and R_4 indicates hydrogen, the C1-10 alkyl group, or a C1-20 arylalkyl group, each of R_5 , R_6 , and R_7 indicates hydrogen or a methyl group, and each of a , b , c , and d is a number indicating a repeating unit in a main chain, where $a+b+c+d = 1$, $0.05 < a/(a+b+c+d) < 0.95$, $0.05 < b/(a+b+c+d) < 0.95$, $0.05 < c/(a+b+c+d) < 0.95$, and $0.05 < d/(a+b+c+d) < 0.95$.

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FIG. 1



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