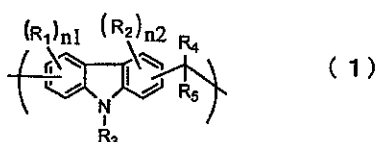


CARBAZOLE NOVOLAK RESIN

ABSTRACT

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There is provided a resist underlayer film having heat resistance that is used for a lithography process in the production of semiconductor devices, and a high refractive index film having transparency that is used for an electronic device. A polymer comprising a unit structure of Formula (1):



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wherein each of R_1 , R_2 , R_3 , and R_5 may be a hydrogen atom, R_4 may be phenyl group or naphthyl group. A resist underlayer film forming composition comprising the polymer, and a resist underlayer film formed from the composition. A high refractive index film forming composition comprising the polymer, and a high refractive index film formed

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Figure 1