

Abstract

PROCESS FOR PRODUCING PHASE RETARDER FROM A THERMOPLASTIC RESIN FILM OR SHEET

For producing a phase retarder, a thermoplastic film or sheet having intrinsic birefringence and preferably of excellent transparency, e.g. a polycarbonate, is subjected to thermal relaxation at a temperature not lower than its glass transition temperature and lower than its melting point; preferably at from T_g to $(T_g + 50^\circ\text{C})$, so as to shrink it in the direction of its stretching axis (or main stretching axis after unbalanced biaxial stretching), while suppressing its expansion in a direction parallel to the surface of the film or sheet and approximately perpendicular ($60\text{-}120^\circ$ angle) to the stretching axis.

The resultant phase retarder film or sheet is used on a liquid crystal display device.

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