Title (en)

OPTICAL COMPENSATION FILM FOR LIQUID CRYSTAL DISPLAYS AND INVENTIONS ASSOCIATED THEREWITH

Title (de)

OPTISCHE KOMPENSATIONSFOLIEN FÜR FLÜSSIGKRISTALLENANZEIGEN UND DAMIT ZUSAMMENHÄNGENDE ERFINDUNGEN

Title (fr)

FILMS DE COMPENSATION OPTIQUE POUR DES AFFICHAGES À CRISTAUX LIQUIDES, ET OBJETS DE L'INVENTION ASSOCIÉS

Publication

EP 2225594 A2 20100908 (DE)

Application

EP 08864668 A 20081204

Priority

- EP 2008010264 W 20081204
- EP 07025159 A 20071224
- EP 08864668 A 20081204

Abstract (en)

[origin: EP2075601A1] A cellulose acylate-based optical compensation film (A) for liquid crystal displays (LCD's) contains (as additive) at least one rod-shaped liquid crystalline poly-p-phenylene compound (I), having at least two aromatic rings. A cellulose acylate-based optical compensation film (A) for liquid crystal displays (LCD's) contains (as additive) at least one poly-p-phenylene compound of formula (I). R 1> : 1-12C n-alkyl or 1-12C n-alkoxy (both optionally having one or more CH 2groups replaced by O, S, CO, COO, OCO, OCOO, NR 4>, CONR 4>or NR 4>CO (provided that O and/or S atoms are not directly bonded together) and optionally substituted by one or more F); R 2> : CN, F or as for R 1>; R 4> : H or 1-7C alkyl; ring A : p-phenylene substituted by (L) a; or trans-1,4-cyclohexylene; Z 1>- Z 4> : COO, OCO, CONR 4>, NR 4>CO, CH 2O, OCH 2, CH 2S, SCH 2 or bond; L : H or F; or one L group can also be Cl; a, b, c, d : 0-2; e : 0 or 1. Independent claims are included for: (1) the use of (I) for the production of the film (A), by addition of (I) during the production of (A); and (2) the production of (A) by incorporation of (I) in a mixture for use in a film forming procedure. POLYMERS - Preferred Composition: The film (A) is based on cellulose acetate-propionate and/or cellulose acetate. (I) is contained in (A) at 0.5-10 (especially 2-6) wt. %. (A) has a thickness of 20-150 (especially 30-100) microns; an in-plane retardation value (Ro) of 30-70 (especially 40-60) nm; and an out-of-plane retardation value (Rth) of 100-160 (especially 120-140) nm or 190-250 (especially 210-230) nm. Preferred Process: (A) is obtained by a solution casting procedure. After casting and drying, the film is oriented monoaxially (preferably with holding perpendicular to the orientation direction) or especially biaxially. [Image].

IPC 8 full level

G02B 5/30 (2006.01); **C09K 19/16** (2006.01)

CPC (source: EP US)

C09K 19/12 (2013.01 - EP US); **C09K 19/3003** (2013.01 - EP US); **G02B 5/3016** (2013.01 - EP US); **G02B 5/3083** (2013.01 - EP US); C09K 2019/123 (2013.01 - EP US); C09K 2019/124 (2013.01 - EP US); C09K 2019/3025 (2013.01 - EP US); C09K 2323/035 (2020.08 - EP US)

Citation (search report)

See references of WO 2009080181A2

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