

Title (en)

LIQUID CRYSTAL INFORMATION DISPLAYS

Title (de)

FLÜSSIGKRISTALLINFORMATIONSANZEIGE

Title (fr)

AFFICHEURS D'INFORMATIONS A CRISTAUX LIQUIDES

Publication

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Application

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Abstract (en)

[origin: WO0246836A2] The invention pertains to information displays, in particular to liquid-crystal (LC) displays that can be used in indicatory devices of various types as well as in optical modulators, matrix systems of light indication, etc. The LC information display contains a layer of liquid crystal situated between the front and the rear panels with functional layers, and the liquid crystal has parameters providing interference maximum or minimum of transmission of reflection at the exit of the display and/or at the boundary of at least two functional layers and/or between the LC layer and a functional layer, for at least one linearly polarized component of light, and for at least one wavelength. The technical result of the declared invention is the enhancement of brightness and contrast of the image, especially for the light traveling normal to the surface of the display, decrease of thickness and simplification of the display design due to optimization of all or at least several functional layers and elements of the display and also due to incorporation of several functions in single layer, the decrease in losses and enhancement of optical characteristics of the display. Use of the declared invention allows optimizing transmission of light through optically anisotropic functional layers of the display, which leads to substantial increase of its effectiveness.

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