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Replacement sheet on 02/05/2002

Abstract

The present invention ~~can provide a polymer dispersing (orientational) type of liquid crystal display element (reverse PDLC) which can reduce a haze, can improve a display contrast and can be incorporated with active element and a color filter and therefore can be used for various applications. Also provided is an electronic apparatus having a quite new value, by combining the reverse PDLC with an electronic apparatus. When the reverse PDLC is intended to be used for the application where a haze is likely stand out, for example, combined with a solar battery an adequate amount of dichroic dye is added to the liquid crystal and further a compound showing no fluorescence emission to the liquid crystal or polymer or a chiral polymer precursor are used. The reverse PDLC is also used for an electronic apparatus. The resulting electronic apparatus shows less haze and enough contrast. The reverse PDLC can also be with a solar battery or other display apparatus with superposing thereon. As the result, a display element and an electronic apparatus which is incorporated with a solar battery or other display apparatus therein and is extremely compact can be fabricated.~~ is an electronic apparatus comprising a display apparatus and a display element. The display element comprises a liquid crystal and a polymer medium formed between a pair of spacially supported substrates. Each substrate has an electrode on one surface and means for applying an electric field across the polymer medium. In the presence of an applied electric field, the medium is placed in a light



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scattering state; and in the absence of an applied electric field, the medium is placed in a light transmissive state. Superimposed information is then displayed on the display element by light scattering on the apparatus. There is also a refractive layer positioned between the display element and display apparatus in the apparatus.