

direction of the applied electric field to the 3-terminal electrode. Therefore, the color purity between the color LC mode and transparent LC mode could be modulated in the proposed LC cell. As results, the proposed LC mode realized both high transmittance and controllable transparency in a single panel. Obviously, the chemical and optical property of the color dye material can be one of most important factor that decides the electro-optical characteristics of the LC cell. Therefore, application of the good dye material to the proposed transparent LC mode will make the electro-optical characteristics of the LC mode excellent.

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