

Effects of Vertical Alignment of LCs on Rubbed Polymer Surfaces using Low Resistive Transparent Electrodes

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Abstract : We investigated the liquid crystal (LC) aligning capabilities and electrooptical characteristics of semi-transparent silver paste electrodes substituting indium tin oxide (ITO) electrodes. Experimental results show that a uniform vertical LC alignment and a large pretilt angle were achieved using the semi-transparent silver paste. The vertical alignment mode based on the semi-transparent silver paste electrodes showed appropriate electro-optical characteristics and a high transparency in comparison with that based on the ITO electrodes. These results indicate that the semi-transparent silver paste electrodes of liquid crystal displays could substitute the ITO electrodes.

Key Words : silver paste, liquid crystal, electro-optical characteristics