EO Characteristics of LC Alignment Layers Exposed Ion-beam Irradiation Angles

Kang-Min Lee, Hong-Gyu Park, Byeong-Yun Oh, Byoung-Yong Kim, Dong-Hun Kang, Jin-Woo Han, Young-Hwan Kim, Chul-Ho Ok, Jeong-Min Han, Sang-Keuk Lee and Dae-Shik Seo
Yonsei Univ.

Abstract: In this study, we investigated liquid crystal (LC) alignment with ion beam (IB) that non contact alignment technique on polyimide and electro-optical characteristics of twisted nematic (TN)-liquid crystal display (LCD) on the polyimide under various ion beam angles. In this experiment, Polyimide layer was coated on glass by spin-coating and Voltage-transmittance(VT) and response time characteristics of the TN cell were measured by a LCD evaluation system. The good characteristics of the nematic liquid crystal (NLC) alignment with the ion beam exposed polyimide surface was observed. In addition, it can be achieved the good EO properties, and residual DC property of the ion beam aligned TN cell on polyimide surface.