

FOCUSING PROPERTIES  
OF POLYMER-STABILIZED  
LIQUID CRYSTAL LENSES

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S u m m a r y

Focusing properties of gradient polymer-stabilized liquid crystal (G-PSLC) lenses are studied. We propose a theoretical model that describes the dependence of the G-PSLC lens focal length on the applied voltage. The model involves the strong light absorption during the polymerization process resulting in a modification of the boundary conditions. Our results can be used to develop G-PSLC lenses without moving parts which will allow the electro-optical zooming.