

### **Electrically variable focus polymer-stabilized liquid crystal lens**

A new approach to fabricate lenses based on liquid crystal with a variable focal length is proposed. The approach is based on curing of a polymer/liquid crystals mixture with Gaussian shaped laser beam to induce a spatially inhomogeneous polymer network formation. Applying a uniform voltage to the non-pixelated cell leads to circular-symmetric (lens-like) distribution of refractive index in the cell. Focusing properties of such lens are tunable by voltage.

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