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(54) Title: FLEXIBLE LIQUID CRYSTAL CELLS AND LENSES

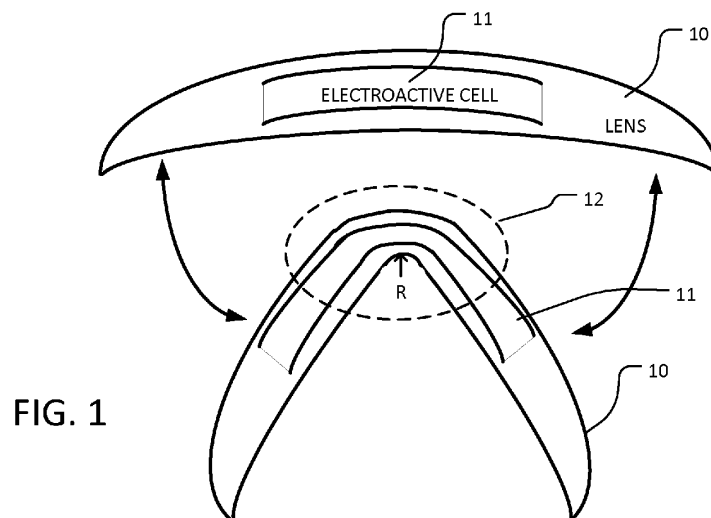


FIG. 1

(57) Abstract: A flexible optical element adopting liquid crystals (LCs) as the materials for realizing electrically tunable optics is foldable. A method for manufacturing the flexible element includes patterned photo-polymerization. The LC optics can include a pair of LC layers with orthogonally aligned LC directors for polarizer-free properties, flexible polymeric alignment layers, flexible substrates, and a module for controlling the electric field. The lens power of the LC optics can be changed by controlling the distribution of electric field across the optical zone.

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