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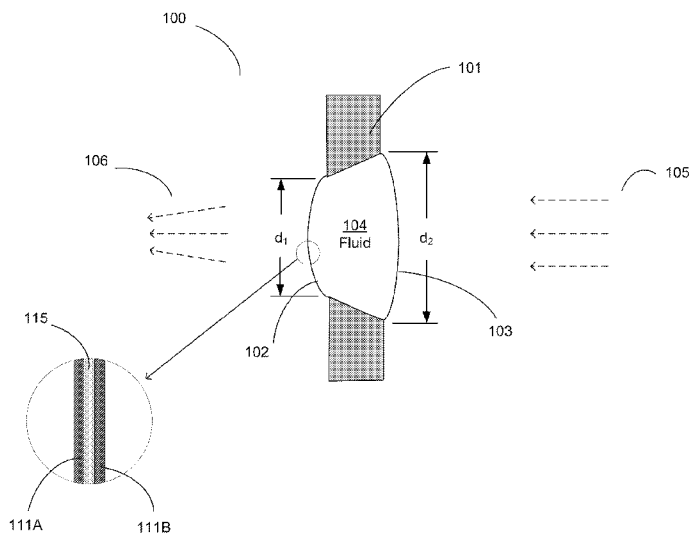


FIG. 1

(57) Abstract: According to some aspects, an adaptive lens is provided. One such adaptive lens comprises at least one fluid-filled chamber located within an optical and/or acoustic path of the lens, and at least one elastomeric and substantially optically and/or acoustically transparent membrane, located within an optical and/or acoustic path of the lens and at least partially bounding one or more of the at least one fluid-filled chambers, wherein one or more of the at least one membranes is configured such that a shape of the membrane is altered upon receipt of an electric field. Some aspects provide a method of producing a lens comprising providing at least one chamber bounded at least in part by first and second membranes, and providing a fluid into the at least one chamber such that the fluid is located within an optical and/or acoustic path of the lens.



INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - G02B 3/12 (2014.01) USPC - 359/665 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) USPC: 359/665 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC: 359/642, 665, 666, 670, 676, 578 (keyword limited; terms below) Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PatBase; Google Scholar; Google Patents Search Terms Used: lens, mirror; membrane, electrode, carbon nanotube, array, fluid, silicone oil, transparent		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- Y	US 2010/0202054 A1 (NIEDERER) 12 August 2010 (12.08.2010), entire document, especially; para [0028], [0029], [0031], [0036], [0037], [0041], [0052], [0074], [0077], [0084]	1, 2, 5-12, 15-17, 20 3, 13, 18
X	US 2008/0144185 A1 (WANG et al.) 19 June 2008 (19.06.2008), entire document, especially; para [0057], [0058], [0062], [0063], [0067], [0074]-[0076], [0086]	1, 2, 4-6, 8, 11, 12, 14, 16, 17, 19
Y	WO 2011/150526 A1 (ASCHWANDEN et al.) 08 December 2011 (08.12.2011), entire document, especially; pg. 25, ln 28 - pg. 26, ln 4	3, 13, 18
A	US 7,929,218 B2 (MOHR et al.) 19 April 2011 (19.04.2011), entire document	1-20
A	US 2010/0249877 A1 (NAUGHTON) 30 September 2010 (30.09.2010), entire document	1-20
A	US 2008/0144185 A1 (Wang et al.) 19 June 2008 (19.06.2008) entire document	1-20
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