

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
02 May 2024 (02.05.2024)



(10) International Publication Number
WO 2024/089400 A1

- (51) **International Patent Classification:**
G02C 7/04 (2006.01) *G02C 7/08* (2006.01)
- (21) **International Application Number:**
PCT/GB2023/052762
- (22) **International Filing Date:**
23 October 2023 (23.10.2023)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
63/420,101 28 October 2022 (28.10.2022) US
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(81) **Designated States** (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) **Designated States** (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, CV,

(54) **Title:** ELECTRICALLY SWITCHABLE LIQUID CRYSTAL CELL, CONTACT LENS AND METHOD RELATING THERE-TO

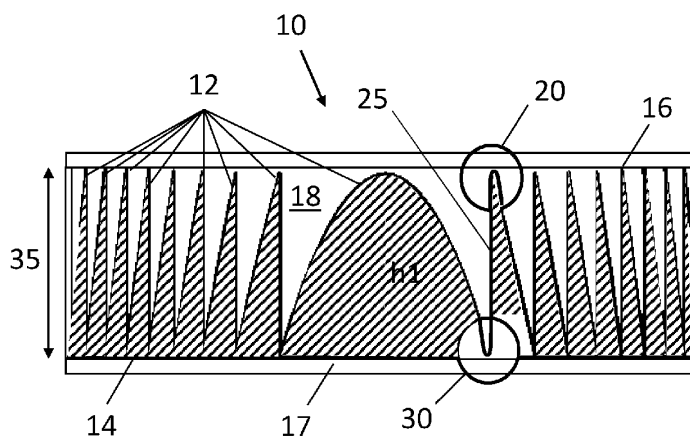


FIG. 1

(57) **Abstract:** An electrically-switchable liquid crystal cell (10) is provided, along with a lens (50) comprising the cell, and methods of manufacturing the cell. The liquid crystal cell (10) includes a diffractive optical element (12) and liquid crystal material (14) switchable between an unmatched state and a matched state. In the unmatched state, the effective refractive index of the liquid crystal material (14) is different from the refractive index of the base material (18) of the diffractive optical element (12). In the matched state, the effective refractive index of the liquid crystal material (14) matches the refractive index of the base material (18). In the matched state the diffractive optical element does not contribute a focal power for the lens. The diffractive optical element (12) has a number of peaks (20) and troughs (30) having rounded corners.

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GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))