

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 November 2006 (23.11.2006)

PCT

(10) International Publication Number
WO 2006/123288 A3

(51) International Patent Classification:
G02B 3/14 (2006.01) **G02B 26/02** (2006.01)

(21) International Application Number:
PCT/IB2006/051528

(22) International Filing Date: 16 May 2006 (16.05.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
05104315.6 20 May 2005 (20.05.2005) EP

(71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL];
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KUIPER, Stein** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **HENDRIKS, Bernardus, H., W.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **RENDERS, Christina, A.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agents: **TOL, Arie, J., W.** et al.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

Published:

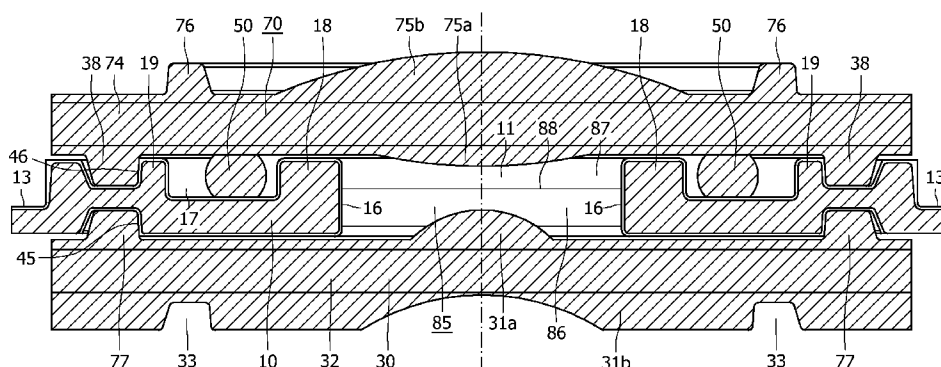
— with international search report

(88) Date of publication of the international search report:

8 March 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ELECTROWETTING ELEMENT, LENS SYSTEM, ELECTRONIC DEVICE AND DRIVING METHOD



(57) Abstract: The electrowetting optical element comprises a first electrically conducting fluid and a second electrically insulating fluid. According to the invention the second fluid comprises a compound including an aliphatic ring-structure. The optical element may be a lens or a zoomlens or be part of a zoomlens system.

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INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2006/051528

A. CLASSIFICATION OF SUBJECT MATTER
 INV. G02B3/14 G02B26/02

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)

G02B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2004/099830 A (KONINKLIJKE PHILIPS ELECTRONICS N.V; KUIPER, STEIN; HENDRIKS, BERNARDU) 18 November 2004 (2004-11-18) page 6, line 1 - page 9, line 13; figure 3 -----	1-9,12
A	WO 2004/099844 A (KONINKLIJKE PHILIPS ELECTRONICS N.V; RENDERS, CHRISTINA, A; KUIPER, ST) 18 November 2004 (2004-11-18) page 6, line 15 - line 20; table 1 -----	1-9,12
A	WO 2004/038480 A (KONINKLIJKE PHILIPS ELECTRONICS N.V; KUIPER, STEIN; HENDRIKS, BERNARDU) 6 May 2004 (2004-05-06) cited in the application page 7, line 18 - page 11, line 5, paragraph 1-4 ----- -/--	1-9,12



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

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"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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Date of the actual completion of the international search

20 September 2006

Date of mailing of the international search report

05. 12. 2006

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

THEOPISTOU, P

INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2006/051528

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 03/069380 A (KONINKLIJKE PHILIPS ELECTRONICS N.V; FEENSTRA, BOKKE, J; KUIPER, STEIN) 21 August 2003 (2003-08-21) figures 1-3	1-9,12
E	----- WO 2006/054209 A (KONINKLIJKE PHILIPS ELECTRONICS N.V; SEMPEL, ADRIANUS; HENDRIKS, BERNA) 26 May 2006 (2006-05-26) page 9, line 5 - line 25; figures 1-3 -----	1

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2006/051528

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

see annex

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-9,12

Optical electrowetting element comprising two immiscible fluids separated over a meniscus whereby the second fluid comprises a compound that includes an aliphatic ring-shaped structure. The problem to be solved by invention 1 is what material to use for the non-polar fluid in order to achieve higher optical power.

2. claims: 10-11,13

Lens system comprising first and second electrowetting optical elements each element having a meniscus whereby the curvatures of the menisci are oriented in opposite directions along the optical axis. The problem to be solved by invention 2 is considered to be how to drive the menisci in order to cancel the chromatic aberrations of both lenses.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2006/051528

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WO 2004099830 A	18-11-2004	CN 1784614 A	07-06-2006
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