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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, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, 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, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
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**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

[Continued on next page]

(54) **Title:** LAMINATION TRANSFER FILMS FOR FORMING ANTIREFLECTIVE STRUCTURES

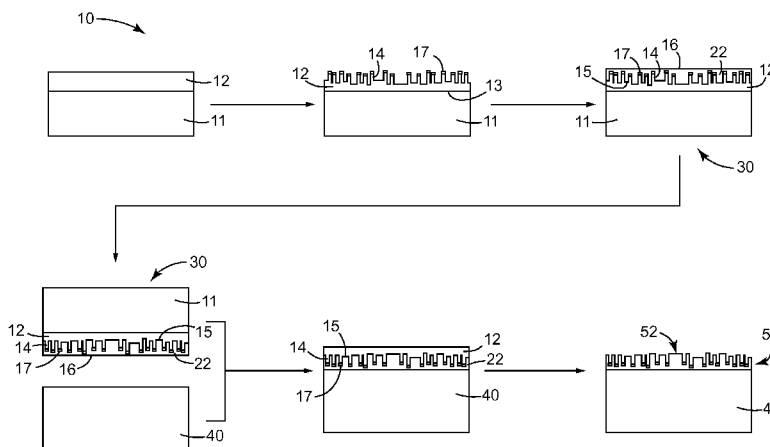


FIG. 1

(57) **Abstract:** The present disclosure relates to lamination transfer films for forming articles with antireflective structures and method of forming these lamination transfer films. A transfer film includes a carrier film, a sacrificial template layer disposed on the carrier film and having antireflective nanostructure template features, and a thermally stable backfill layer having a first surface conforming to the antireflective nanostructure template features and an opposing planar second surface.





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- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

**A. CLASSIFICATION OF SUBJECT MATTER****G02B 1/11(2006.01)i, B32B 27/00(2006.01)i**

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 1/11; B41J 31/05; B41M 5/26; H05K 7/20; B32B 27/14; H01L 33/00; H01L 21/00; B41M 5/40; B44C 1/17; B32B 27/00

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) &amp; Keywords: transfer film, carrier film, sacrificial layer, anti reflect (AR), nanostructure, backfill layer

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6521324 B1 (MARK K. DEBE et al.) 18 February 2003 See column 6, line 9 - column 9, line 44 and figures 9A-9C.	1-24
A	US 7384809 B2 (MATTHEW DONOFRIO) 10 June 2008 See column 4, line 32 - column 8, line 38 and figures 1-5.	1-24
A	JP 2011-068004 A (DAINIPPON PRINTING CO., LTD.) 07 April 2011 See paragraphs [0015]-[0024] and figure 1.	1-24
A	US 2010-0104807 A1 (JU-CHEN CHIU et al.) 29 April 2010 See paragraphs [0059]-[0065] and figures 2A-2B.	1-24
A	US 2005-0126766 A1 (JU-HYUNG LEE et al.) 16 June 2005 See paragraphs [0050]-[0066] and figures 1A-1H.	1-24

 Further documents are listed in the continuation of Box C. See patent family annex.

\* Special categories of cited documents:

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

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

"P" document published prior to the international filing date but later than the priority date claimed

"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

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

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Name and mailing address of the ISA/KR

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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

**PCT/US2015/010730**

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