

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2018/020669

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl. C08K5/3492(2006.01)i, C07D251/46(2006.01)i, C07D251/70(2006.01)i,
C07D417/14(2006.01)i, C08F2/44(2006.01)i, C08F2/50(2006.01)i,
C08F20/34(2006.01)i, C08F265/04(2006.01)i, C08J5/18(2006.01)i,
G02B1/04(2006.01)i, H01L27/146(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)

Int.Cl. C08K5/3492, C07D251/46, C07D251/70, C07D417/14, C08F2/44,
C08F2/50, C08F20/34, C08F265/04, C08J5/18, G02B1/04, H01L27/146

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

Published examined utility model applications of Japan	1922-1996
Published unexamined utility model applications of Japan	1971-2018
Registered utility model specifications of Japan	1996-2018
Published registered utility model applications of Japan	1994-2018

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

CAplus/REGISTRY (STN)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	JP 2006-96875 A (FUJI PHOTO FILM CO., LTD.) 13 April 2006, paragraphs [0109], [0112] (Family: none)	17 1-16
X A	SU 1529687 A1 (DRIZHD, L. P. et al.) 15 October 1993, columns 9-14 (Family: none)	17 1-16

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 application or patent 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
“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
“&” document member of the same patent family

Date of the actual completion of the international search
02 August 2018 (02.08.2018)

Date of mailing of the international search report
14 August 2018 (14.08.2018)

Name and mailing address of the ISA/
Japan Patent Office
3-4-3, Kasumigaseki, Chiyoda-ku,
Tokyo 100-8915, Japan

Authorized officer

Telephone No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	JP 48-42494 B1 (FUJI PHOTO FILM CO., LTD.) 13 December 1973, page 21, table 1 & US 3887380 A, columns 19-20, table 1	17 1-16
X A	JP 63-216062 A (NIPPON KAYAKU CO., LTD.) 08 September 1988, example 17 (Family: none)	17 1-16
X A	JP 57-188576 A (ASAHI KASEI INDUSTRY CO., LTD.) 19 November 1982, example 20 (Family: none)	17 1-16
A	CN 101451020 A (PRODISC TECHNOLOGY INC.) 10 June 2009 (Family: none)	1-17

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Box No. 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 No. 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 extra 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 additional fees, this Authority did not invite payment of additional fees.
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.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

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<Continuation of Box III>

It is obvious that there is no common STF between claim 1 and claim 17 (the common chemical structure shared between the compound of claim 1 represented by general formula (I), which encompasses a very wide range and represents a very ambiguous chemical structure, and the compound of claim 17 represented by general formula (IV) is obviously known, as disclosed in, for example, documents A-E).

Furthermore, claim 17 is not dependent on claim 1, and it is obvious that claim 17 is not substantially identical or equivalent to claim 1.

Therefore, the present application lacks unity of invention.

Furthermore, considering that claim 17 obviously lacks novelty and does not involve an inventive step in light of documents A-E, an additional fee was not requested.

Document A: JP 2006-96875 A (FUJI PHOTO FILM CO., LTD.) 13 April 2006 (see paragraphs [0109], [0112], etc.)

Document B: SU 1529687 A1 (DRIZHD, L. P. et al.) 15 October 1993 (see columns 9-14, etc.)

Document C: JP 48-42494 B1 (FUJI PHOTO FILM CO., LTD.) 13 December 1973 (see page 21, table 1, etc.)

Document D: JP 63-216062 A (NIPPON KAYAKU CO., LTD) 08 September 1988 (see example 17, etc.)

Document E: JP 57-188576 A (ASAHI KASEI INDUSTRY CO., LTD.) 19 November 1982 (see example 20, etc.)

<Regarding the subject of the search>

With regard to the invention in claims 1-16, the search was carried out only for a portion (see below) for which a meaningful search can be carried out.

In view of the description (paragraph [0008], etc.) of the present application, the problem to be solved by the invention in claims 1-16 is to provide a composition which is capable of forming a film having a high refractive index and is excellent in step conformability, and a lens using the composition.

However, only the resin composition comprising a specific individual compound, polymerizable compound, binder, photopolymerization initiator, solvent, and surfactant, disclosed as examples 1-33 in table 2, is objectively proven to be capable of solving the problem in the description of the present application.

Furthermore, sufficient grounds for objectively determining that the problem can be solved are not found in any part of the invention in claims 1-16, which includes cases in which any compound represented by general formula (I) encompassing a very wide range and representing a very ambiguous chemical structure is used, cases in which a polymerizable compound is not included, and cases in which any polymerizable compound having different properties than the above polymerizable compound is used.

Therefore, the greater part of the invention in claims 1-16 exceeds the scope within which a person skilled in the art would recognize that the problem to be solved could be solved, i.e., exceeds the scope of the disclosure of the description, and thus does not satisfy the requirement pertaining to support stipulated in PCT Article 6.

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In view of the entire description of the present application and taking into account technical common knowledge, only the invention comprising the configuration of a "composition containing: a compound for which \ast_A of general formula (III) in claim 7 is represented by general formula (II) in claim 4 or by R_5 or R_9 described in the description (page 64); a solvent; and a 2-15 functional (meth)acrylate compound (polymerizable compound disclosed in paragraph [0101] of the description), wherein the content of the compounds is at least 30 wt% based on the total solid content in the composition" in claims 1-16 was determined to be a part for which a meaningful search could be carried out.