



## SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 22 75 05 42

**Classification of the application (IPC):**  
G02B 6/26, G02B 6/02, G02B 6/28, G02B 6/30

**Technical fields searched (IPC):**  
G02B

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X A	US 2018172916 A1 (KOPP VICTOR IL'ICH [US] ET AL) 21 June 2018 (2018-06-21) * paragraphs [0190], [0312], [0316]; claim 1; figures 8,9 *	1, 2, 8, 9 3-7
A	US 2015331180 A1 (OYAMADA HIROSHI [JP]) 19 November 2015 (2015-11-19) * paragraph [0207]; figures 7,8 *	1-9
A	US 2014093205 A1 (GRUNER-NIELSEN LARS [DK] ET AL) 03 April 2014 (2014-04-03) * paragraph [0034]; figure 3 *	1-9

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search The Hague	Date of completion of the search 07 November 2024	Examiner Ciarrocca, Marco
------------------------------	--	------------------------------

### CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
& : member of the same patent family, corresponding document	L: document cited for other reasons

Disclaimer: this document has been automatically generated using data structured in accordance with WIPO standard ST.36 from the database of search reports of the European Patent Office. For technical reasons, its content and layout may differ from that of the original publication. Only the original published information is legally binding.



## ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 22 75 05 42

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on 07-11-2024.  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2018172916	A1	21-06-2018	NONE	
US 2015331180	A1	19-11-2015	CN 103913800 A	09-07-2014
			EP 2749917 A2	02-07-2014
			JP 6124778 B2	10-05-2017
			JP 2014142613 A	07-08-2014
			KR 20140086831 A	08-07-2014
			US 2015331180 A1	19-11-2015
US 2014093205	A1	03-04-2014	CN 103547953 A	29-01-2014
			CN 103649797 A	19-03-2014
			CN 103827708 A	28-05-2014
			EP 2678722 A1	01-01-2014
			EP 2678723 A1	01-01-2014
			EP 2678729 A1	01-01-2014
			JP 2014509410 A	17-04-2014
			JP 2014509411 A	17-04-2014
			JP 2014509412 A	17-04-2014
			JP 2016075943 A	12-05-2016
			JP 2016075944 A	12-05-2016
			JP 2016122209 A	07-07-2016
			US 2014093205 A1	03-04-2014
			US 2014161404 A1	12-06-2014
			WO 2012161809 A1	29-11-2012
			WO 2012161810 A1	29-11-2012
			WO 2012161811 A1	29-11-2012