

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2019/047345

A. CLASSIFICATION OF SUBJECT MATTER
 Int.Cl. G01N37/00 (2006.01) i, C12M1/00 (2006.01) i, G02B21/34 (2006.01) i,
 G01N1/28 (2006.01) i, G01N33/00 (2006.01) i
 FI: C12M1/00A, G02B21/34, G01N33/00Z, G01N37/00101, G01N1/28F, G01N1/28W
 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. G01N37/00, C12M1/00, G02B21/34, G01N1/28, G01N33/00

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	1971-2020
Registered utility model specifications of Japan	1996-2020
Published registered utility model applications of Japan	1994-2020

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 WPI, JSTPlus/JMEDPlus/JST7580 (JDreamIII)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2018/212309 A1 (OSAKA PREFECTURE UNIVERSITY) 22.11.2018 (2018-11-22), claims, fig. 4-8	1-15
X	JP 2007-89566 A (TOKYO UNIVERSITY OF AGRICULTURE AND TECHNOLOGY) 12.04.2007 (2007-04-12), claims, fig. 1-24	1-15
X	WO 2009/016842 A1 (TOKYO UNIVERSITY OF AGRICULTURE AND TECHNOLOGY) 05.02.2009 (2009-02-05), claims, fig. 2	1-15
X	WO 2014/141386 A1 (HITACHI, LTD.) 18.09.2014 (2014-09-18), particularly, fig. 5	1-15
X	WO 2017/094101 A1 (HITACHI HIGH-TECHNOLOGIES CORP.) 08.06.2017 (2017-06-08), claims, fig. 1, 10	1-15
X	WO 2016/125254 A1 (HITACHI, LTD.) 11.08.2016 (2016-08-11), particularly, fig. 1, 2, 5	1-9, 13-15
P, X	WO 2019/049944 A1 (SONY CORPORATION) 14.03.2019 (2019-03-14), particularly, paragraphs [0004], [0005], fig. 13	1-5, 7-15

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

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"&" document member of the same patent family
"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	

Date of the actual completion of the international search 10.02.2020	Date of mailing of the international search report 18.02.2020
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INTERNATIONAL SEARCH REPORT
Information on patent family members

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WO 2018/212309 A1	22.11.2018	(Family: none)
JP 2007-89566 A	12.04.2007	(Family: none)
WO 2009/016842 A1	05.02.2009	US 2010/0240041 A1 claims, fig. 2 EP 2175014 A1
WO 2014/141386 A1	18.09.2014	US 2016/0010078 A1 particularly, fig. 5 EP 2975123 A1 CN 105026562 A
WO 2017/094101 A1	08.06.2017	US 2018/0265918 A1 claims, fig. 1, 10 CN 108291186 A
WO 2016/125254 A1	11.08.2016	(Family: none)
WO 2019/049944 A1	14.03.2019	(Family: none)