

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/JP2018/029636

**A. CLASSIFICATION OF SUBJECT MATTER**  
 Int.Cl. G01N21/49(2006.01) i, G01N21/47(2006.01) i, G01N33/53(2006.01) i,  
 G01N33/543(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. G01N21/00-21/83, G01N33/00-33/98, G01N35/00-35/10, G01N37/00,  
 G01N1/00-1/44, G02B21/00-21/36, C12M1/00-1/42, C12M3/00-3/10,  
 C12Q1/00-1/70, C12Q3/00

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	1971-2018
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)  
 JSTPlus/JMEDPlus/JST7580 (JDreamIII), JJAP, IEEE Xplore, Scitation, Science Direct, ACS PUBLICATIONS SCIENCE, nature.com

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2017-058242 A (JVC KENWOOD CORPORATION) 23 March 2017, paragraphs [0016]-[0084], fig. 1-10 (Family: none)	1-7
Y	WO 2004/095034 A1 (NAGAOKA & CO., LTD.) 04 November 2004, page 26, line 32 to page 27, line 31, fig. 25-29 & US 2005/0037484 A1, paragraphs [0156]-[0159], fig. 25-29	1-7

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 22 October 2018 (22.10.2018)	Date of mailing of the international search report 06 November 2018 (06.11.2018)
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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.
Y	WO 2010/001598 A1 (SEKISUI MEDICAL CO., LTD.) 07 January 2010, paragraphs [0011], [0022] & US 2011/0104709 A1, paragraphs [0012]-[0014], [0045] & EP 2317319 A1, paragraphs [0012]-[0014], [0026]	1-7
Y	WO 2013/002403 A1 (SEKISUI MEDICAL CO., LTD.) 03 January 2013, paragraphs [0012]-[0014] & US 2015/0301038 A1, paragraphs [0043]-[0051] & EP 2728356 A1, paragraphs [0013]-[0018] & CN 103635804 A	1-7
Y	WO 2009/145250 A1 (ARKRAY, INC.) 03 December 2009, paragraphs [0031], [0043] & US 2011/0076695 A1, paragraphs [0036], [0048] & US 2013/0143311 A1 & EP 2295970 A1, paragraphs [0031], [0043] & CN 101999076 A	1-7
A	WO 2013/161543 A1 (SANYO ELECTRIC CO., LTD.) 31 October 2013, paragraphs [0023]-[0085], fig. 1-9 & US 2015/0031121 A1, paragraphs [0045]-[0107], fig. 1-8 & EP 2843395 A1, paragraphs [0023]-[0085], fig. 1-8	1-7
A	JP 2013-531787 A (ARRYX, INC.) 08 August 2013 & JP 2013-533469 A & US 2013/0260396 A1 & US 2013/0274119 A1 & WO 2011/149525 A1 & WO 2011/149526 A2 & EP 2576759 A2 & EP 2576805 A1 & CN 103025859 A & CN 103025886 A	1-7
A	JP 2015-092148 A (JVC KENWOOD CORPORATION) 14 May 2015 (Family: none)	1-7
A	JP 2015-127691 A (JVC KENWOOD CORPORATION) 09 July 2015 & JP 2015-127692 A	1-7
A	JP 2017-040595 A (JVC KENWOOD CORPORATION) 23 February 2017 & US 2018/0180604 A1 & WO 2017/033547 A1 & EP 3339863 A1	1-7
A	WO 2017/056526 A1 (JVC KENWOOD CORPORATION) 06 April 2017 & US 2018/0217175 A1 & EP 3358349 A1	1-7
P,A	"An optical pickup enzyme- linked immunosorbent assay (ELISA) with a microfluidic disk", RSC Advances, 18 April 2018, vol. 8, issue 26, pp. 14510-14514, doi: 10.1039/c8ra01149d	1-7