

INTERNATIONAL SEARCH REPORT

International application No. PCT/JP2019/046133
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<p>A. CLASSIFICATION OF SUBJECT MATTER H05B 47/115 (2020.01) i; A61L 2/10 (2006.01) i; H01L 33/00 (2010.01) i FI: H05B37/02 H; A61L2/10; H01L33/00 L</p> <p>According to International Patent Classification (IPC) or to both national classification and IPC</p>																																				
<p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols) H05B47/115; A61L2/10; H01L33/00</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p> <table border="0"> <tr> <td>Published examined utility model applications of Japan</td> <td align="right">1922-1996</td> </tr> <tr> <td>Published unexamined utility model applications of Japan</td> <td align="right">1971-2020</td> </tr> <tr> <td>Registered utility model specifications of Japan</td> <td align="right">1996-2020</td> </tr> <tr> <td>Published registered utility model applications of Japan</td> <td align="right">1994-2020</td> </tr> </table> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)</p>			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																										
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<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th align="center">Category*</th> <th align="center">Citation of document, with indication, where appropriate, of the relevant passages</th> <th align="center">Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td align="center">X Y</td> <td>JP 2009-238454 A (PANASONIC ELECTRIC WORKS CO., LTD.) 15.10.2009 (2009-10-15) paragraphs [0017], [0029]-[0043], fig. 2, 6-7</td> <td align="center">1-3 4-17</td> </tr> <tr> <td align="center">Y</td> <td>JP 2017-027960 A (ENDO LIGHTING CORPORATION) 02.02.2017 (2017-02-02) paragraph [0034]</td> <td align="center">4-17</td> </tr> <tr> <td align="center">Y</td> <td>JP 6-223975 A (SEKISUI CHEMICAL CO., LTD.) 12.08.1994 (1994-08-12) paragraph [0017]</td> <td align="center">5-6, 10-17</td> </tr> <tr> <td align="center">Y</td> <td>JP 2016-200913 A (DAINICHISEIKA COLOR & CHEMICALS MFG. 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Information on patent family members

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JP 6-223975 A	12 Aug. 1994	(Family: none)	
JP 2016-200913 A	01 Dec. 2016	(Family: none)	
JP 2010-526696 A	05 Aug. 2010	US 2008/0122376 A1 paragraphs [0074]- [0075] EP 2082621 A2 KR 10-2009-0082276 A	