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(54) Title: FIELD-SHAPING MULTI-WELL AVALANCHE DETECTOR FOR DIRECT CONVERSION AMORPHOUS SELENIUM

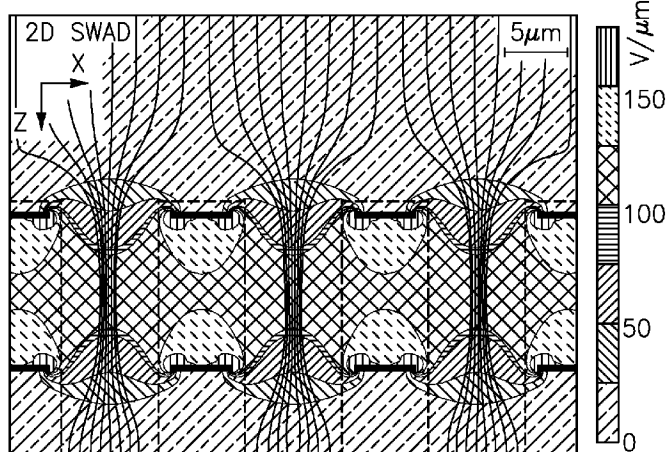


FIG. 6

(57) Abstract: A field shaping multi-well avalanche detector and method for fabrication thereof are disclosed. The field shaping multi-well avalanche detector provides stable avalanche multiplication gain in direct conversion amorphous selenium radiation detectors. The detector provides stable avalanche multiplication gain by eliminating field hot-spots using high-density avalanche wells with insulated wells and field-shaping within each well.



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/051351**A. CLASSIFICATION OF SUBJECT MATTER****H01L 31/107(2006.01)i, G01D 5/30(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHEDMinimum documentation searched (classification system followed by classification symbols)
H01L 31/107; G01T 1/18; G01T 1/00; G01T 1/26; H01L 31/09; G01T 1/24; G01D 5/30Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean utility models and applications for utility models
Japanese utility models and applications for utility modelsElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)
eKOMPASS(KIPO internal) & Keywords: detector, a plurality of wells, amorphous selenium (a-Se), grid electrode**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	KR 10-2010-0001639 A (DRTECH CORP.) 6 January 2010 See paragraphs [0017]-[0031]; and figures 1a, 3.	1-3, 6-8, 13, 14 , 17-19 4, 5, 9-12, 15, 16, 20
A	US 2006-0054835 A1 (JOHN A. ROWLANDS et al.) 16 March 2006 See paragraph [0032]; and figure 3.	1-20
A	JP 2011-216769 A (SHIMADZU CORP.) 27 October 2011 See paragraphs [0033]-[0045]; and figure 1.	1-20
A	JP 2010-034166 A (HAMAMATSU PHOTONICS KK.) 12 February 2010 See paragraphs [0010]-[0032]; and figures 1-3.	1-20
A	WO 2011-041750 A1 (LOMA LINDA UNIVERSITY MEDICAL CENTRE) 7 April 2011 See paragraphs [0178]-[0184]; and figure 18.	1-20

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

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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US 2006-0054835 A1	16/03/2006	US 7323692 B2 WO 2006-020874 A2 WO 2006-020874 A3	29/01/2008 23/02/2006 06/04/2006
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WO 2011-041750 A1	07/04/2011	EP 2483710 A1 JP 2013-506850 A US 2011-0133071 A1	08/08/2012 28/02/2013 09/06/2011