Title (en)

TOOL FOR DETECTING PHOTONIC RADIATION PARTICULARLY SUITABLE FOR HIGH-FLUX RADIATION

Title (de)

WERKZEUG ZUR DETEKTION VON PHOTONENSTRAHLUNG, DIE INSBESONDERS FÜR HOCHDICHTE STRAHLUNG GEEIGNET IST

Title (fr)

OUTIL DE DETECTION DE RAYONNEMENT PHOTONIQUE PARTICULIEREMENT ADAPTE A DES RAYONNEMENTS A FORT FLUX

Publication

EP 3111250 A1 20170104 (FR)

Application

EP 15713201 A 20150224

Priority

- FR 1451610 A 20140227
- FR 2015050437 W 20150224

Abstract (en)

[origin: WO2015128574A1] The invention relates to a tool for detecting radiation, comprising: a semiconductor detector material (10) able to interact with ionising radiation; an electrode (100) for collecting charge carriers generated in the detector material under the effect of an interaction with the ionising radiation; a shaping circuit (11) for forming an electrical pulse having a shape that depends on the amount of charge collected; a counting circuit (15, 16, 17, 22) for counting the number of pulses formed, comprising a counter and an incrementing element, characterised in that it comprises: a duration-measuring element (17) for measuring a pulse duration (f) for each pulse formed; a peak-detecting element (15) for determining a maximum amplitude (H) of each pulse formed; and a combining element (16) for combining said maximum amplitude H and said pulse duration (f), in order to establish said parameter for comparison. Preferably, the parameter for comparison is the product (H × t) of a maximum amplitude measured for the pulse and the corresponding pulse duration, the counting threshold having a fixed preset value.

IPC 8 full level

G01T 1/17 (2006.01); **G01T 1/24** (2006.01)

CPC (source: EP US)

G01T 1/17 (2013.01 - EP US); **G01T 1/247** (2013.01 - EP US)

Citation (search report)

See references of WO 2015128574A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

FR 3017962 A1 20150828; **FR 3017962 B1 20160401**; EP 3111250 A1 20170104; JP 2017512984 A 20170525; US 10175367 B2 20190108; US 2017017000 A1 20170119; WO 2015128574 A1 20150903

DOCDB simple family (application)

FR 1451610 A 20140227; EP 15713201 A 20150224; FR 2015050437 W 20150224; JP 2016554391 A 20150224; US 201515121099 A 20150224