

Title (en)
RADIATION DETECTOR WITH AN ADJUSTABLE SPECTRAL SENSITIVITY

Title (de)
STRAHLUNGSDETektor MIT EINSTELLBARER SPEKTRALER EMPFINDLICHKEIT

Title (fr)
DÉTECTEUR DE RAYONNEMENT À SENSIBILITÉ SPECTRALE RÉGLABLE

Publication
EP 2054705 A1 20090506 (DE)

Application
EP 07847523 A 20071129

Priority
• EP 2007063007 W 20071129
• DE 102006056579 A 20061130
• DE 102007012115 A 20070313

Abstract (en)
[origin: WO2008065170A1] The invention specifies a radiation detector (1) having a detector arrangement (2), which has a plurality of detector elements (4, 5, 6) which are used to obtain a detector signal (DS) during operation of the radiation detector, and having a control apparatus (3), wherein the detector elements each have a spectral sensitivity distribution (400, 500, 600) and are suitable for generating signals (S4, S5, S6), at least one detector element contains a compound semiconductor material and this detector element is designed to detect radiation in the visible spectral range, the radiation detector is designed in such a manner that the sensitivity distributions of the detector elements are used to form different spectral sensitivity channels (420, 520, 620) of the radiation detector, a channel signal (K4, K5, K6) which is assigned to the respective sensitivity channel can be generated in the sensitivity channels using the detector elements, and the control apparatus is designed in such a manner that the contributions of different channel signals to the detector signal of the radiation detector are controlled differently.

IPC 8 full level
G01J 1/42 (2006.01); **G01J 3/36** (2006.01)

CPC (source: EP KR US)
G01J 1/42 (2013.01 - KR); **G01J 1/4228** (2013.01 - EP US); **G01J 3/36** (2013.01 - EP US); **G01J 3/46** (2013.01 - EP US);
G01J 3/465 (2013.01 - EP US); **G01J 3/50** (2013.01 - EP US); **G01J 3/51** (2013.01 - EP US); **G01J 3/513** (2013.01 - EP US);
H01L 31/00 (2013.01 - KR); **H01L 31/105** (2013.01 - EP US); **G01J 1/0488** (2013.01 - EP US); **G01J 2003/507** (2013.01 - EP US)

Citation (search report)
See references of WO 2008065170A1

Designated contracting state (EPC)
DE FR GB

Designated extension state (EPC)
AL BA HR MK RS

DOCDB simple family (publication)
DE 102007012115 A1 20080605; CN 101535785 A 20090916; CN 101535785 B 20111228; EP 2054705 A1 20090506;
JP 2010511162 A 20100408; KR 101430030 B1 20140814; KR 20090098850 A 20090917; TW 200844412 A 20081116; TW I365976 B 20120611;
US 2010097609 A1 20100422; US 8274657 B2 20120925; WO 2008065170 A1 20080605

DOCDB simple family (application)
DE 102007012115 A 20070313; CN 200780041421 A 20071129; EP 07847523 A 20071129; EP 2007063007 W 20071129;
JP 2009538716 A 20071129; KR 20097013679 A 20071129; TW 96144735 A 20071126; US 51683107 A 20071129