

Title (en)
RADIATION DETECTOR OF VERY HIGH PERFORMANCE.

Title (de)
STRAHLUNGSDETektor SEHR HOHER LEISTUNG

Title (fr)
DETECTEUR DE RAYONNEMENTS A TRES HAUTE PERFORMANCE

Publication
EP 0948803 B1 20061108 (EN)

Application
EP 98956848 A 19981016

Priority

- EP 9806569 W 19981016
- US 95612897 A 19971022
- US 15004698 A 19980909

Abstract (en)
[origin: WO9921211A1] A radiation detector in which primary electrons are released into a gas by ionizing radiations and drifted through an electric field (E) to a collecting electrode (CE) for detection. It further includes a gas electron multiplier (10, 11, 12) formed by one or several matrices of electric field condensing areas (1i) which are distributed within a solid surface perpendicular to the electric field. Each electric field condensing area consists of a tiny hole passing through the solid surface that forms a dipole adapted to produce a local electric field amplitude enhancement proper to generate an electron avalanche from one primary electron. The gas electron multiplier operates thus as an amplifier or a preamplifier within a host radiation detector.

IPC 8 full level
G01T 1/18 (2006.01); **H01J 47/00** (2006.01); **H01J 29/46** (2006.01); **H01J 31/49** (2006.01); **H01J 47/02** (2006.01)

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H01J 47/02 (2013.01)

Cited by
CN108352287A; WO2013157975A1; US10453661B2; WO2015121520A1; DE102011051472A1; WO2013000607A1; WO2018149827A1; US11287397B2

Designated contracting state (EPC)
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