

Title (en)

ULTRA-SENSITIVE OPTICAL DETECTOR WITH HIGH TIME RESOLUTION, USING A SURFACE PLASMON

Title (de)

HOCHEMPFLINDLICHER, EIN OBERFLÄCHENPLASMON VERWENDENDER OPTISCHER DETEKTOR MIT HOHER ZEITAUFÖSUNG

Title (fr)

DETECTEUR OPTIQUE ULTRASENSIBLE A GRANDE RESOLUTION TEMPORELLE, UTILISANT UN PLASMON DE SURFACE

Publication

**EP 1875179 A2 20080109 (FR)**

Application

**EP 06743825 A 20060421**

Priority

- FR 2006050368 W 20060421
- FR 0551061 A 20050425

Abstract (en)

[origin: FR2884916A1] The detector has a dielectric substrate (SB) on which a detection unit (39a) is provided to generate an electrical signal from the energy of received photons. A coupling unit, formed on the substrate, is distinct from the unit (39a) that is made of a superconductor material. The coupling unit has a metallic guide (G) to generate a surface plasmon by an interaction with the photons and to guide the plasmon until the unit (39a) which absorbs the energy of the plasmon. The unit (39a) forms a thin and short strip.

IPC 8 full level

**G01J 5/20** (2006.01)

CPC (source: EP US)

**B82Y 20/00** (2013.01 - EP US); **G01J 1/42** (2013.01 - EP US); **G02B 6/1226** (2013.01 - EP US); **G01J 1/0209** (2013.01 - EP US); **G02B 6/30** (2013.01 - EP US); **G02B 2006/12107** (2013.01 - EP US)

Citation (search report)

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