

Title (en)
PHOTODETECTION DEVICE

Title (de)
FOTODETEKTOR

Title (fr)
DISPOSITIF DE PHOTODETECTION

Publication
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Application
EP 11813407 A 20111216

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Abstract (en)
[origin: WO2012080989A2] The present invention relates to a photodetector for detecting an infrared-light emission having a given wavelength (?) comprising a multilayer with: a layer (11) of a partially absorbent semiconductor; a spacer layer (12) made of a material that is transparent to said wavelength; and a structured metallic mirror (13), the distance (g) between the top of said mirror and said spacer layer being smaller than λ and said mirror comprising a network of holes defining an array of metallic reliefs with a pitch P of between $0.5 \lambda / n_{SC}$ and $1.5 \lambda / n_{SC}$, where n_{SC} is the real part of the refractive index of the semiconductor, a relief width L of between $9P/10$ and $P/2$ and a hole depth h of between $\lambda/100$ and $\lambda/15$.

IPC 8 full level
H01L 31/0232 (2006.01)

CPC (source: EP US)
H01L 31/0232 (2013.01 - EP US); **H01L 31/02327** (2013.01 - EP US)

Citation (search report)
See references of WO 2012080989A2

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