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Patent Number(s): FR2966595-A1; WO2012056124-A1

Title: Device for detecting e.g. thermal infrared radiation, has enclosure provided with reflector unit that prolongs another reflector unit enclosure, and forms continuous reflecting screen with latter reflector unit

Inventor Name(s): YON J J; IMPERINETTI P; MARY A; RABAUD W; YON J

Patent Assignee(s): COMMISSARIAT ENERGIE ATOMIQUE (COMS)

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Abstract: NOVELTY - The device has an enclosure (19) with a reflector unit reflecting incident electromagnetic radiation. The enclosure and a substrate (18) define a cavity (20) in which a reference detector i.e. reference bolometer (10), is housed. The enclosure has another lateral reflector unit inhibiting emission secondary electromagnetic radiation coming from transmission the incident radiation via electromagnetic coupling. The latter unit prolongs the former unit, and forms a continuous reflecting screen (37) with the former unit. The enclosure has a support wall between the screen and the cavity.

USE - Device for detecting electromagnetic radiation e.g. terahertz radiation or thermal infrared radiation.

ADVANTAGE - The configuration the device ensures precise and reliable measurement the electromagnetic radiation, ensures better resolution signal emitted by the device, and ensures improved sensitivity the device to thermal and electric disturbances. The device is small in size and inexpensive. The device amplifies imaging scene signal, with high gain, large number pixels and improved f-set current baselining effect.

DESCRIPTION DRAWING(S) - The drawing shows a schematic perspective view a device for detecting electromagnetic radiation.

Reference bolometer (10)

Substrate (18)

Enclosure (19)

Cavity (20)

Continuous reflecting screen (37)

Drawing:

Derwent Class Code(s): S03 (Scientific Instrumentation, photometry, calorimetry)

Derwent Manual Code(s): S03-A03

IPC: G01J-005/04; G01J-005/20; G01J-005/02; G01J-005/06

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