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Patent Number(s): CN102445420-A

Title: Terahertz quantum device based transmission imaging device, has signal processing circuit and electric translation stage unit connected to oscillograph to display voltage value, measured sample and two-dimensional terahertz signal strength

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Derwent Primary Accession No.: 2012-F98444

Abstract: NOVELTY - The device has a polyethylene window plate (4) mounted on a cooling head (2). Terahertz light is passed through the polyethylene window plate. A heat sink unit (3) is mounted on the cooling head. A signal processing circuit (14) is connected to a computer (16). The signal processing circuit and a two-dimensional (2D) electric translation stage unit (8) are connected to an oscillograph (15) to display voltage value, measured sample and 2D terahertz signal strength. The polyethylene window plate is made high strength polyethylene material.

USE - Terahertz quantum device based transmission imaging device.

ADVANTAGE - The device adopts a terahertz radiation source and enables utilizing a signal detector to detect imaging speed and imaging quality.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a terahertz quantum device based transmission imaging method.

DESCRIPTION DRAWING(S) - The drawing shows a schematic view a terahertz quantum device based transmission imaging device.

Cooling head (2)

Heat sink unit (3)

Polyethylene window plate (4)

2D electric translation stage unit (8)

Signal processing circuit (14)

Oscillograph (15)

Computer (16)

Derwent Class Code(s): A89 (Photographic, laboratory equipment, optical); S01 (Electrical Instruments including e.g. instrument panels); S03 (Scientific Instrumentation, photometry, calorimetry); T01 (Digital Computers); V04 (Printed Circuits and Connectors)

Derwent Manual Code(s): A04-G02E4; A12-E10; A12-E13; S01-C; S01-D01; S03-E04A1; T01-M06Q; V04-T03A

IPC: G01N-021/27

Patent Details:

Patent Number	Publ. Date	Main IPC	Week	Page Count	Language
CN102445420-A	09 May 2012	G01N-021/27	201240	Pages: 16	Chinese

Application Details and Date:

CN102445420-A CN10308833 13 Oct 2011

Priority Application Information and Date:

CN10308833 13 Oct 2011