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Patent Number(s): US2012175521-A1

Title: Detection method of presence of explosives on target involves analyzing radiation received from detector element to identify explosives

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Patent Assignee(s): SYSTEM PLANNING CORP (SYST-Non-standard)

Derwent Primary Accession No.: 2012-H99203

Abstract: NOVELTY - The detection method involves providing emitting element, emitting electron beam from a first anode, focusing electron beam through a focusing element, deflecting focused electron beam across a refraction deflecting element, directing Terahertz waves (204,214) across a waveguide element, applying voltage to a second electrode, providing detector element, and analyzing radiation received from the detector element to identify explosives. The detector element is comprised of an imaging unit for receiving terahertz radiation reflected from the target.

USE - Detection method of presence of explosives on target.

ADVANTAGE - Provides a technique that can detect and positively identify explosives in real time. Provides a reliable mechanism of generating Terahertz waves and imaging reflected Terahertz waves to detect and confirm the presence of explosives.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a detection apparatus of presence of explosives on target.

DESCRIPTION OF DRAWING(S) - The drawing shows a schematic view of the Terahertz semiconductor chip.

Terahertz chip (101)

Input coupler (202)

Terahertz waves (204,214)

Focal point (206)

Silicon lens wave guide (212)

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

Derwent Manual Code(s): S03-C03; S03-C06

IPC: G01J-003/28; G01J-005/10