

Title (en)

METHOD AND APPARATUS FOR DETECTING AND IDENTIFYING FISSIONABLE MATERIAL

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ERFASSUNG UND IDENTIFIZIERUNG EINES SPALTBARENS MATERIAL

Title (fr)

PROCEDE ET APPAREIL POUR DETECTER ET IDENTIFIER DES MATIERES FISSIBLES

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Application

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Abstract (en)

[origin: WO9711388A1] The invention relates to a method and apparatus for detecting and identifying fissionable materials from among other transported goods, in which method the material (4) under inspection is irradiated with bremsstrahlung (2) generated by a linear particle accelerator (1). According to the invention, a delayed neutrons flux emitted from the material (4) under inspection by means of bremsstrahlung (2) is detected with at least one neutron detector (7) after interrupting the bremsstrahlung (2), and if essential changes occur in the neutron flux, the position of the material (4) in relation to the detector is determined. After inspecting the whole bulk of goods, the material (4) is returned to the position determined according to the change in the neutron flux in relation to the detector (7), and in this determined position the material (4) is again irradiated with bremsstrahlung (2) in order to identify the material generating the neutron flux, and at least one neutron detector (7) is used for detecting the delayed neutrons emitted from the fissionable material, in order to identify the fissionable material (6) in question.

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