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#### (54) Title: X- RAY APPARATUS, PARTICULARLY FOR SECURITY APPLICATIONS

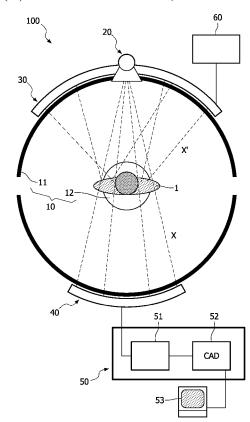


FIG. 1

(57) Abstract: The invention relates to an X-ray apparatus (100) and a method for the examination of a subject (1), comprising the irradiation of the subject (1) with X-rays and the detection of backscattered/reflected photons (X') as well as transmitted photons (X). The apparatus may particularly be used in security applications, e.g. at an airport, for detecting suspect things concealed by a person (1). As an additional benefit, the transmission images of the person (1) may be evaluated with respect to medical anomalies, for example suspect lung nodules.



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A. CLASSIFICATION OF SUBJECT MATTER INV. G01V5/00 G01T1/164 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) G01T G01V Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Category\* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X VOGEL ET AL: "Search by X-rays applied 1,2,4,5 technology" EUROPEAN JOURNAL OF RADIOLOGY, ELSEVIER SCIENCE, NL, vol. 63, no. 2, 15 August 2007 (2007-08-15), pages 227-236, XP022200118 ISSN: 0720-048X Α The entire document 3 US 4 799 247 A (ANNIS MARTIN [US] ET AL) X 1,4 17 January 1989 (1989-01-17) abstract column 5, line 26 - column 6, line 65 column 8, line 40 - line 66 column 9, line 11 - line 53 figures -/--X Further documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents : "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance invention earlier document but published on or after the international "X" document of particular relevance; the claimed invention filing date cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 22/01/2010 7 January 2010 Authorized officer Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016 Datta, Shyamal

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