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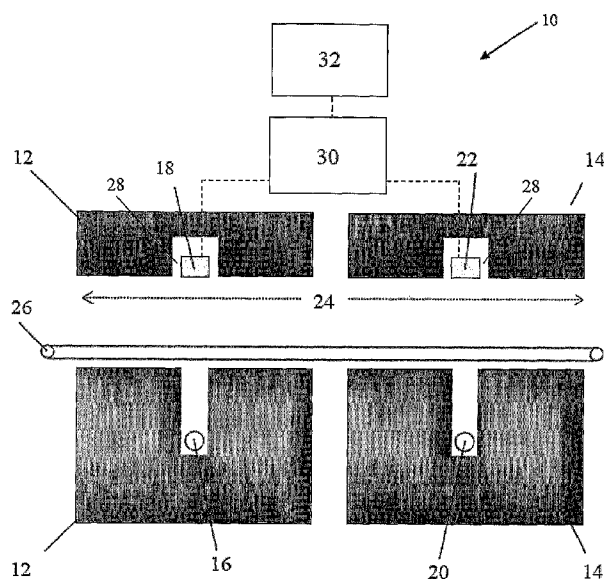
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11 October 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: RADIOGRAPHIC EQUIPMENT



(57) Abstract: Radiographic equipment comprising a source of X-ray or gamma-ray radiation (16) having two or more energies and operable to irradiate an object to be scanned and a radiation source producing neutrons (20) operable to irradiate the object. The equipment also comprises a radiation detector array (18, 22) having a plurality of pixels, each sensitive to and arranged with respect to the X-ray or gamma-ray radiation source and the neutron producing radiation source and operable to measure the intensity of each type of radiation transmitted through the object; means (30) to process the intensity of each type of radiation, to determine the attenuation of each type of radiation having passed through the object, and to form an image (32) indicative of the shape and composition of the object's interior.

WO 2006/037169 A3

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2005/001522

## A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. <sup>7</sup>: G01N 23/087; 23/09

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)

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 practicable, search terms used)

DWPI & keywords: radiography, tomography, image, detect, scan, interior, internal; xray, x-ray, gamma, neutron; two, dual, multi, energy, energetic, luggage, cargo, box, bag, postal and other similar terms

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	RYNES et al. "Gamma-ray and neutron radiography as part of a pulsed fast neutron analysis inspection system", Nuclear Instruments & Method in Physics Research A, vol 422, no. 1-3, 1999, pages 895-899 See entire document	1,4,6,7,11,16, 18-20,26-28, 34
X	WO 2000/043760 A2 (HEIMANN SYSTEMS (SOCIETE ANONYME)) 27 July 2000 See entire document	1,4,5,11,26,34
X	US 5 519 225 A (MOHR ET AL.) 21 May 1996 See column 2 line 29 – column 4 line 49	1,2,4,6-11, 26,27,34

☒ Further documents are listed in the continuation of Box C

☒ See patent family annex

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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

30 November 2005

Date of mailing of the international search report

5 - DEC 2005

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# INTERNATIONAL SEARCH REPORT

International application No.

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C (Correlation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2004/053472 A1 (COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION) 24 June 2004 See pages 1 - 9	1-39
Y	WO 1992/002892 A1 (VIVID TECHNOLOGIES, INC) 20 February 1992 See pages 18 - 27	1-39
A	Derwent Abstract Accession No. 91-030371/05, Class P82, DE 4009335 A (GKSS-FORSCHUNGSZ GE) 24 January 1991 See abstract	
A	Derwent Abstract Accession No. 83-737486/33, Class K08, J5 8113-842 A (JAPAN ATOMIC ENERGY RES (MITO)) 6 July 1983 See abstract	
A	EP 0 459 648 A1 (GAMMA-METRICS) 4 December 1991 See entire document	

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU2005/001522

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member			
WO	0043760	FR	2788599		
US	5519225	NONE			
WO	2004053472	AU	2003285991	CA	2508169 EP 1579202
WO	9202892	AU	85036/91	EP	0542911 EP 0942295
		EP	1429158	EP	1452890 US 5319547
		US	5490218	US	5838758
DE	4009335	NONE			
JP	58113842	NONE			
EP	0459648	AU	77388/91	CA	2042662 JP 4231845
Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.					
END OF ANNEX					