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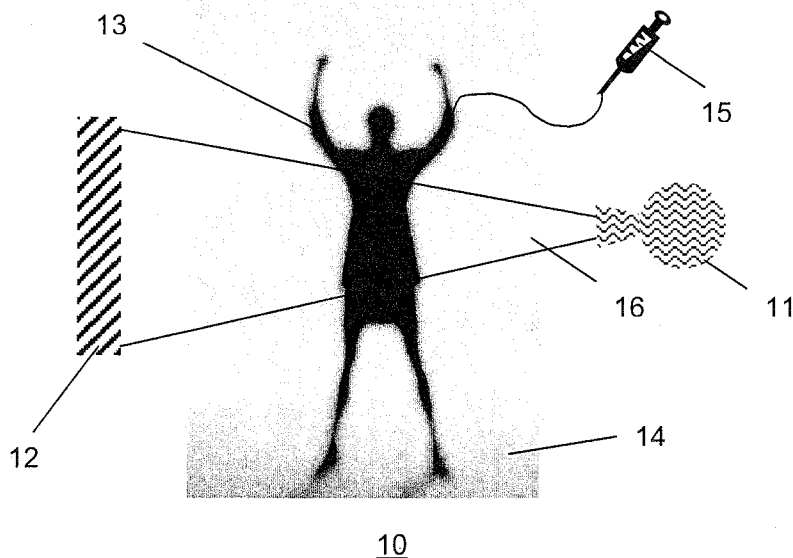
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(54) Title: CONTRAST-ENHANCED CONE BEAM X-RAY IMAGING, EVALUATION, MONITORING AND TREATMENT DELIVERY



(57) Abstract: A method of imaging a patient's uncompressed region of interest using X-ray cone beam computed tomography or cone beam digital tomography comprises the step of introducing an effective amount of a contrast agent to the uncompressed region of interest. A system for imaging a patient's uncompressed region of interest using cone beam computed tomography (CBCT) or cone beam digital tomography (CBDT) comprises an X-ray source transmitting an X-ray to the uncompressed region of interest, an image acquisition system acquiring a plurality of two-dimensional projection images data for a CBCT or CBDT data set with at least one of the projection images acquired in 35 milliseconds or less, and a processor generating a three-dimensional computed tomography image data set

resolving voxels with dimensions of 0.4 mm or less in at least two orthogonal directions.

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**INTERNATIONAL SEARCH REPORT**

International application No.  
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**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC: **A61B 6/04**( 2006.01)  
  
 USPC: 378/4-27,37,65,68  
 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)  
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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)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,497,662 B2 (SUURMOND) 24 December 2002 (24.12.2002), entire document	39
X	US 2005/0084060 A1 (SEPPi et al) 21 April 2005 (21.04.2005), entire document	1-38
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Y		

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"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"P" document published prior to the international filing date but later than the priority date claimed		

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