

Title (en)
APPARATUS FOR ANGIOGRAPHIC X-RAY PHOTOGRAPHY

Title (de)
GERÄT FÜR DIE ANGIOGRAPHISCHE RÖNTGEN-BILDGEBUNG

Title (fr)
APPAREIL D'IMAGERIE ANGIOGRAPHIQUE RADIOGRAPHIQUE

Publication
EP 1617763 A1 20060125 (DE)

Application
EP 04728619 A 20040421

Priority
• IB 2004050476 W 20040421
• EP 03101103 A 20030422
• EP 04728619 A 20040421

Abstract (en)
[origin: WO2004093684A1] The invention relates to an X-ray photographic apparatus for imaging the blood flow in the coronary vessel tree of a patient. According to the invention, a first series (1) of X-ray projection images of the coronary tree in various phases of the heart cycle is recorded, at the same time as the ECG (2) of the patient is taken. The three-dimensional structure of the vessel tree in the various phases of the heart cycle is then reconstructed by means of suitable programming means of the computerised portion (17) of the claimed apparatus. A second series (6) of X-ray projection images is recorded while a contrast agent is administered, again at the same time as the ECG (7) is taken. In order to determine the time-dependent contrast agent concentration within the reconstructed three-dimensional structure of the vessel tree, the invention proposes locating local image regions which correspond to individual vessel segments (5, 8) within the X-ray projection images in the second series (6), according to the positions in space of the vessel segments (5, 8) in the relevant phase of the heart cycle. The contrast agent concentration in the area of the vessel segments (5, 8) is then determined by evaluation of X-ray absorption in the thus located local image regions.

IPC 1-7
A61B 6/00

IPC 8 full level
A61B 6/00 (2006.01)

CPC (source: EP US)
A61B 6/481 (2013.01 - EP US); **A61B 6/504** (2013.01 - EP US); **A61B 6/4441** (2013.01 - EP US)

Citation (search report)
See references of WO 2004093684A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2004093684 A1 20041104; WO 2004093684 A8 20060302; EP 1617763 A1 20060125; JP 2006524087 A 20061026; US 2006293579 A1 20061228; US 7539529 B2 20090526

DOCDB simple family (application)
IB 2004050476 W 20040421; EP 04728619 A 20040421; JP 2006506870 A 20040421; US 55377004 A 20040421