

Title (en)

DEVICE USING X-RAYS TO HIGHLIGHT SOFT-TISSUE PARTS IN MEDICAL RADIOTHERAPY

Title (de)

VORRICHTUNG ZUR AUF RÖNTGENSTRAHLEN BASIERENDEN HERVORHEBUNG VON WEICHTEILEN IN DER MEDIZINISCHEN STRAHLENTHERAPIE

Title (fr)

DISPOSITIF PERMETTANT DE METTRE EN ÉVIDENCE LES PARTIES MOLLES, SUR LA BASE DES RAYONS X, DANS LA RADIOTHÉRAPIE MÉDICALE

Publication

**EP 2558163 A1 20130220 (DE)**

Application

**EP 11712798 A 20110323**

Priority

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Abstract (en)

[origin: CA2796233A1] The invention relates to a device using X-rays to highlight soft-tissue parts in medical imaging. This device and an associated method can be implemented in particular in radiotherapy equipment or used in radiotherapy. One aspect of the invention is a control of the radiation dose needed for the therapy, which control involves phase-contrast imaging using X-rays to highlight soft-tissue parts and can preferably be used in a radiotherapy apparatus. The result of the imaging by highlighting soft-tissue parts can be used for real-time and non-real-time planning of therapy and for adapting the treatment plan or the radiation dose. The radiation dose control here comprises: c) anatomical imaging for locating tumours before, during and after irradiation, d) optionally: real-time adaptation of the treatment plan, on the basis of imaging that highlights soft-tissue parts. The positioning and arrangement of the combination of X-ray sources S and detector D in such a radiotherapy apparatus and of an accelerator T are independent of one another. The accelerator makes it possible to cover the entire body of the patient P with X-rays.

IPC 8 full level

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CPC (source: EP US)

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