98 05171-7
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International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : A61N 5/10 — A1

(11) International Publication Number: WO 97/35641

(43) International Publication Date: 2 October 1997 (02.10.97)

(21) International Application Number: PCT/US96/04055

(22) International Filing Date: 26 March 1996 (26.03.96)

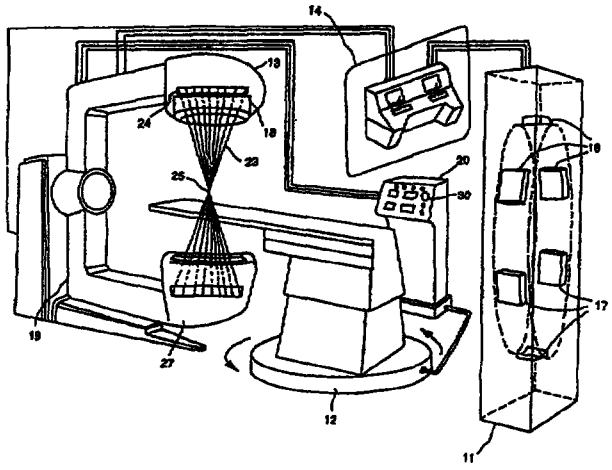
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(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).

Published
With international search report.

(54) Title: RADIATION THERAPY AND RADIATION SURGERY TREATMENT SYSTEM AND METHODS OF USE OF SAME



(57) Abstract

A radiosurgery and radiotherapy system to provide diagnostic imaging and target localization via a patient 3-D mapping means such as a CT scanner or MRI, patient positioning via a four degree of freedom of motion table, and a stereotactic Cobalt 60 therapy unit incorporating multiple sources to therapeutically irradiate a target is provided. Methods of radiosurgery and radiotherapy utilizing the system are also provided. A combination of radiation source configuration, 360 degree rotational characteristics of the therapy unit, and table movement will allow any size and shape of target to be irradiated to therapeutic levels while decreasing radiation exposure to surrounding healthy tissue. A radiation beam catcher which captures greater than 80 % and preferably greater than 90 % of the radiation from the radiation sources is also provided.