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- (81) 指定国(除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL,

(54) **Title:** MOTION CONTROL DEVICE OF ULTRASONIC TREATMENT HEAD FOR LARGE-RANGE TARGET AREA FOCUSING

(54) 发明名称: 一种大范围目标区域聚焦的超声治疗头运动控制装置

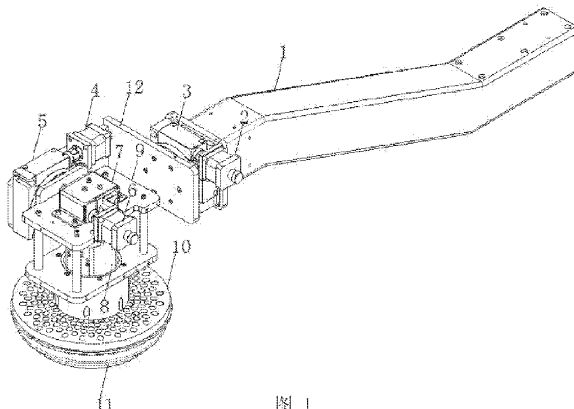


图 1

(57) **Abstract:** Disclosed in the present application is a motion control device of an ultrasonic treatment head for large-range target area focusing. The motion control device comprises a swing control module and an ultrasonic imaging probe control module; the swing control module consists of a vertical motion module, a left-right motion module, and an axial motion module; the three motion modules respectively control the probe control module to swing along two degrees of freedom, i.e., front-back and left-right, and rotate axially, and perform ultrasonic imaging on a target area; the vertical motion module comprises a height-adjusting cross arm; a first rotating plate is mounted at an end of the height-adjusting cross arm; a power input end of the first rotating plate is in driving connection with a first swing motor; the left-right motion module comprises a metal connecting piece rotatably connected to a plate body of the first rotating plate; a second swing motor is mounted on one side of the metal connecting piece; an output end of the second swing motor is in driving connection with a power input end of a second rotating plate. Compared with the prior art, the present invention has the effects of being simple in structure, easy to manufacture and capable of reducing the costs, and irradiation treatment of different treatment units is achieved by swinging a treatment head.

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ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
UZ, VC, VN, WS, ZA, ZM, ZW。

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本国际公布:

- 包括国际检索报告 (条约第21条(3))。

(57) 摘要: 本申请公开了一种大范围目标区域聚焦的超声治疗头运动控制装置, 包括摆动控制模块和超声成像探头控制模块, 摆动控制模块由垂直方向运动模组、左右方向运动模组和轴向运动模组组成, 三个运动模组分别控制探头控制模块沿前后、左右两个自由度摆动以及轴向转动并进行目标区域超声造像; 垂直方向运动模组包括升降横臂, 升降横臂的端头处安装有第一转盘, 第一转盘的动力输入端驱动连接有第一摆动电机; 左右方向运动模组包括与第一转盘盘体转动连接的金属连接件, 金属连接件的一侧安装有第二摆动电机, 第二摆动电机的输出端与第二转盘的动力输入端驱动连接, 本发明相比于现有技术, 具有结构简单、制作容易、可降低成本的效果, 通过摆动治疗头实现不同治疗单元的辐照治疗。