

Title (en)
Apparatus for providing X-rays.

Title (de)
Röntgengerät.

Title (fr)
Appareil à rayons X.

Publication
EP 0058137 A2 19820818 (EN)

Application
EP 82810049 A 19820205

Priority
US 23277481 A 19810209

Abstract (en)
Apparatus for providing X-rays (11) to an object (12) in air. A lens (13) directs energy (14) from a laser (27) onto a target (15) to produce X-rays (11) of a selected spectrum and intensity. A substantially fluid-tight first enclosure (16) around the target (15) has a pressure therein substantially below atmospheric pressure, and has at least a portion of one wall (19) in common with an adjoining substantially fluid-tight second enclosure (18) containing only helium or hydrogen. The common wall portion (19) has an opening (20) large enough to permit X-rays (11) to pass through and yet small enough that gas (21) can be evacuated from the first enclosure (16) at least as fast as it enters through the opening (20). The target (15) is located close to the opening (20) and emits a substantial portion of the X-rays (11) through the opening (20) and on toward a wall (22) of the second enclosure (18) having a portion (25) that is highly transparent to them, so that the object (12) to which the X-rays (11) are to be provided may be located outside the second enclosure (18) and adjacent thereto and thus receive the X-rays (11) substantially unimpeded by air or other undesired intervening matter.

IPC 1-7
G21G 4/00; H01J 35/00

IPC 8 full level
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CPC (source: EP)
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Cited by
US4692934A; EP0181193A3; US4484339A

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EP 0058137 A2 19820818; **EP 0058137 A3 19830316**; CA 1184675 A 19850326; JP S57150000 A 19820916

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