Title (en)

HIGH POWER ROTARY X-RAY TUBE ANODE AND METHOD FOR ITS PRODUCTION

Publication

EP 0104515 A3 19860115 (DE)

Application

EP 83108830 A 19830907

Priority

DE 3236104 A 19820929

Abstract (en)

[origin: EP0104515A2] The high power X-ray rotating anode has a rotating, plate-shaped electron deceleration body which contains a material of one or more components having a high characteristic value Z x @max x 2ROOT lambda x rho xc, where Z is the ordinal index, @max is the maximum permissible temperature, lambda is the thermal conductivity, rho is the density and c is the specific heat. Furthermore, the deceleration body is thermally conductively connected to parts made of carbon which have a high emission capability epsilon at the operating temperatures of the deceleration body which occur. In order further to improve the radiation cooling of this rotating anode, according to the invention at least the front side (regions 5 and 6) of the plate-shaped deceleration body (2) which is exposed to the electrons (8) is at least partially provided with a coating (11, 12) of an amorphous carbon, which at the operating temperatures of the deceleration body (2) which occur, has an emission capability epsilon of at least 0.5, and is thus at least generally chemically resistant to the X-ray-active material (layer 9) of the deceleration body (2). <IMAGE>

IPC 1-7

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IPC 8 full level

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CPC (source: EP US)

H01J 35/105 (2013.01 - EP US)

Citation (search report)

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- [A] DE 2146918 A1 19730322 - SIEMENS AG
- [A] GB 2084124 A 19820407 - GEN ELECTRIC

Cited by

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