

Title (en)

LINEAR ACCELERATOR WITH SELF-FOCALISING CAVITIES, WITH HIGH ELECTRON CAPTURE RATE AT LOW INJECTION VOLTAGES

Publication

EP 0336850 B1 19920923 (FR)

Application

EP 89400963 A 19890407

Priority

FR 8804707 A 19880408

Abstract (en)

[origin: EP0336850A1] Good grouping and good capturing efficiency properties of a first resonating cavity (10) of an accelerator (1 to 5) are associated with self-focusing properties of this cavity associated with a second following cavity (11), by modifying (17, 18) the law for the modulus of the electric field set up inside this cavity. It is arranged for the amplitude of this field to be smaller in a first part (15) of this cavity than in a second part (16). It is shown that in the first part of this cavity the electrons then group together naturally, and that they may subsequently undergo, in the second part of the cavity, an acceleration and then a focusing including entry into the following cavity affecting them all homogeneously. In short, this enhances the capture rate and the electron density of the beam accelerated from a low-voltage gun (1). <IMAGE>

IPC 1-7

H05H 7/00; **H05H 9/00**

IPC 8 full level

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Cited by

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