

Title (en)

PARTICLE ACCELERATOR HAVING A SWITCH ARRANGEMENT NEAR AN ACCELERATOR CELL

Title (de)

TEILCHENBESCHLEUNIGER MIT SCHALTERANORDNUNG NAHE EINER BESCHLEUNIGERZELLE

Title (fr)

ACCÉLÉRATEUR DE PARTICULES COMPRENANT UN MONTAGE DE COMMUTATION PROCHE D'UNE CELLULE D'ACCÉLÉRATION

Publication

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Application

EP 10742114 A 20100723

Priority

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- EP 2010060682 W 20100723

Abstract (en)

[origin: WO2011026694A1] The invention relates to a particle accelerator comprising at least one acceleration cell (1) and a power supply device (5). The power supply device (5) is connected to the accelerator cell (1) via a feed line (6), so that electric energy can be fed in pulsed form to the accelerator cell (1) via the feed line (6). The accelerator cell (1) generates an electric field (E) due to the electric energy fed thereto, by means of which electric field an electrically charged elementary particle (4) is accelerated. The power supply device (5) has a DC current source (7) and a circuit arrangement (8). The power supply device (5) is designed such that electric energy provided by the DC current source (7) is capacitively buffered, and upon corresponding actuation of the circuit arrangement (8), is fed to the acceleration cell (1). The circuit arrangement (8) is disposed near the acceleration cell (1), so that the same is exposed to ionizing radiation generated by the particle accelerator at least during operation. The DC current source (7) is connected to the circuit arrangement (8) via a first cable (11).

IPC 8 full level

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