

Title (en)
RF RESONATOR CAVITY AND ACCELERATOR

Title (de)
HF-RESONATOR KAVITÄT UND BESCHLEUNIGER

Title (fr)
CAVITÉ RÉSONNANTE HF ET ACCÉLÉRATEUR

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Application
EP 11704560 A 20110202

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Abstract (en)
[origin: CA2790805A1] The invention relates to an RF resonator cavity for accelerating charged particles (15), wherein an electromagnetic RF field can be coupled into the RF resonator cavity (11). During operation, the RF field acts on a particle beam (15) which traverses the RF resonator cavity (11). The invention is characterised in that at least one intermediate electrode (13) for increasing the dielectric strength (11) is arranged in the RF resonator cavity along the beam path of the particle beam (15), wherein the conductivity of the intermediate electrode (13) is limited such that upon coupling-in of the electromagnetic RF field at the operating frequency of the RF resonator cavity the intermediate electrode (13) is at least partially penetrated by the coupled-in electromagnetic RF field.

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