

Title (en)
MAGNET DEVICE WITH CURVED COIL WINDINGS

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Application
EP 87111574 A 19870810

Priority
DE 3702389 A 19870128

Abstract (en)
[origin: US4769623A] A magnetic device is arranged in a curved section of the path of electrically charged particles of an acceleration installation around a beam guiding chamber. The magnetic device contains curved coil windings built up of superconducting rectangular conductors, which have convex outsides, concave insides as well as transition regions at the coil ends between these sides. The superconducting coil windings (4a) according to the invention are arranged at least with their winding parts (57, 58) forming the convex outsides (53) and concave insides (54) in grooves of correspondingly formed coil formers of the magnetic device, with the grooves extending downward at least approximately perpendicular to the plane (x-y plane) determined by the particle path. In addition, the superconducting coil windings (4a') in the region of their coil ends (55') are bent up saddle-shaped. With these measures the effect of undesirable conductor motions on the exactitude of the magnetic fields generated by the coil windings can at least largely be excluded.

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CPC (source: EP US)
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Cited by
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