

Title (en)

BAND-SHAPED CHOPPER FOR A PARTICLE BEAM

Title (de)

BANDFÖRMIGER CHOPPER FÜR EINEN TEILCHENSTRAHL

Title (fr)

HACHEUR EN FORME DE BANDE POUR FAISCEAU DE PARTICULES

Publication

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Application

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Abstract (en)

[origin: WO2014075649A1] The invention relates to a band-shaped chopper for a particle beam (2). Said chopper comprises at least one control element (2), which is divided into at least two regions A and B, wherein region B has a lower transparency for the particle beam than region A, and at least one drive source ((3), (4)) for conveying the control element through the particle beam in such a manner that the particle beam is incident on the regions A and B alternately in time. According to the invention the control element is designed in the shape of a band and lies in frictional engagement against the outer circumference of at least one element that can be caused to rotate by the drive source. According to the invention designing the control element as a band-shaped element enables a considerably more compact configuration of the chopper than wheel-shaped or annular choppers according to the prior art to date. In particular, the drive source, which is bulky compared with the control element, can be arranged spatially separate from the beam path, owing to the fact that the band itself transmits the force of the drive source.

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