

Title (en)  
CYCLOTRON

Publication  
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Application  
**EP 86902291 A 19860430**

Priority  
LU 85895 A 19850510

Abstract (en)  
[origin: WO8606924A1] Non supraconductor cyclotrons. According to the invention such a cyclotron (1) comprises a magnetic circuit comprising at least three sectors (13, 13') called "hills", wherein the air-gap (19) is reduced to a size similar to that of the accelerated beam and wherein the magnetic flux is substantially concentrated, said hills being separated by spacings (15) configured like sectors called "valleys" wherein the air-gap is of a very large size so that the magnetic flux is essentially null and the magnetic circuit is further comprised of a single pair of coils (2), which are substantially circular and surrounding the hills (13, 13') and the valleys (15, 15'). This form of execution enables to achieve important energy savings, the power consumed being reduced for example from 100kW for a normal non supraconductor cyclotron to 7 kW in the form of execution according to the invention.

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**H05H 13/00**

IPC 8 full level  
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Cited by  
US9730308B2; USRE48317E; US10258810B2; US10456591B2; US9622335B2; US10368429B2; US10925147B2; US9706636B2; US10675487B2; US10646728B2; US10786689B2; US11213697B2; US11786754B2; US9925395B2; US10279199B2; USRE48047E; US10722735B2; US9681531B2; US9962560B2; US10155124B2; US10254739B2; US9950194B2; US10653892B2; US11291861B2; US11311746B2; US11717703B2; US6683426B1; US9661736B2; US9723705B2; US10434331B2; US11103730B2; US11717700B2

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