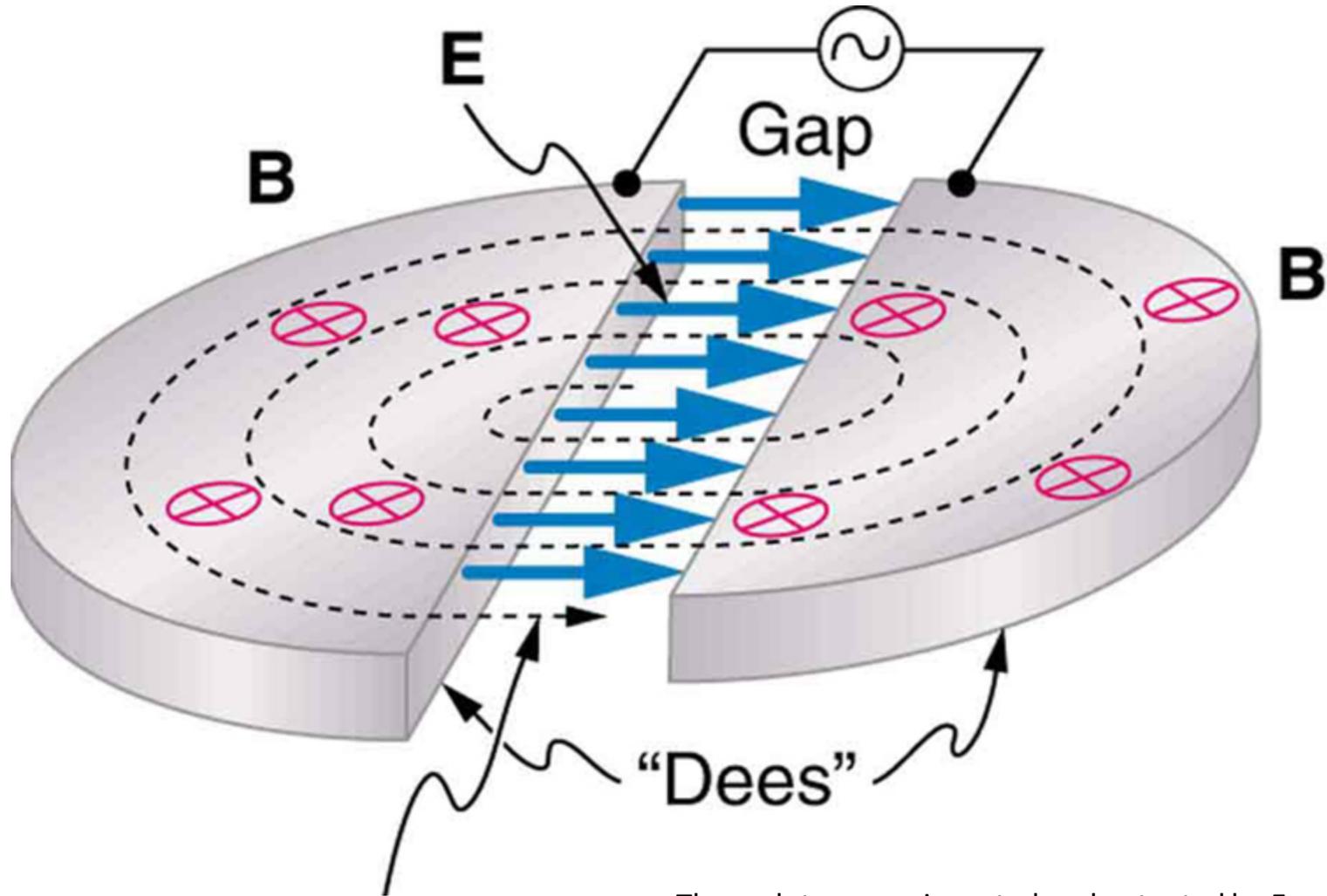


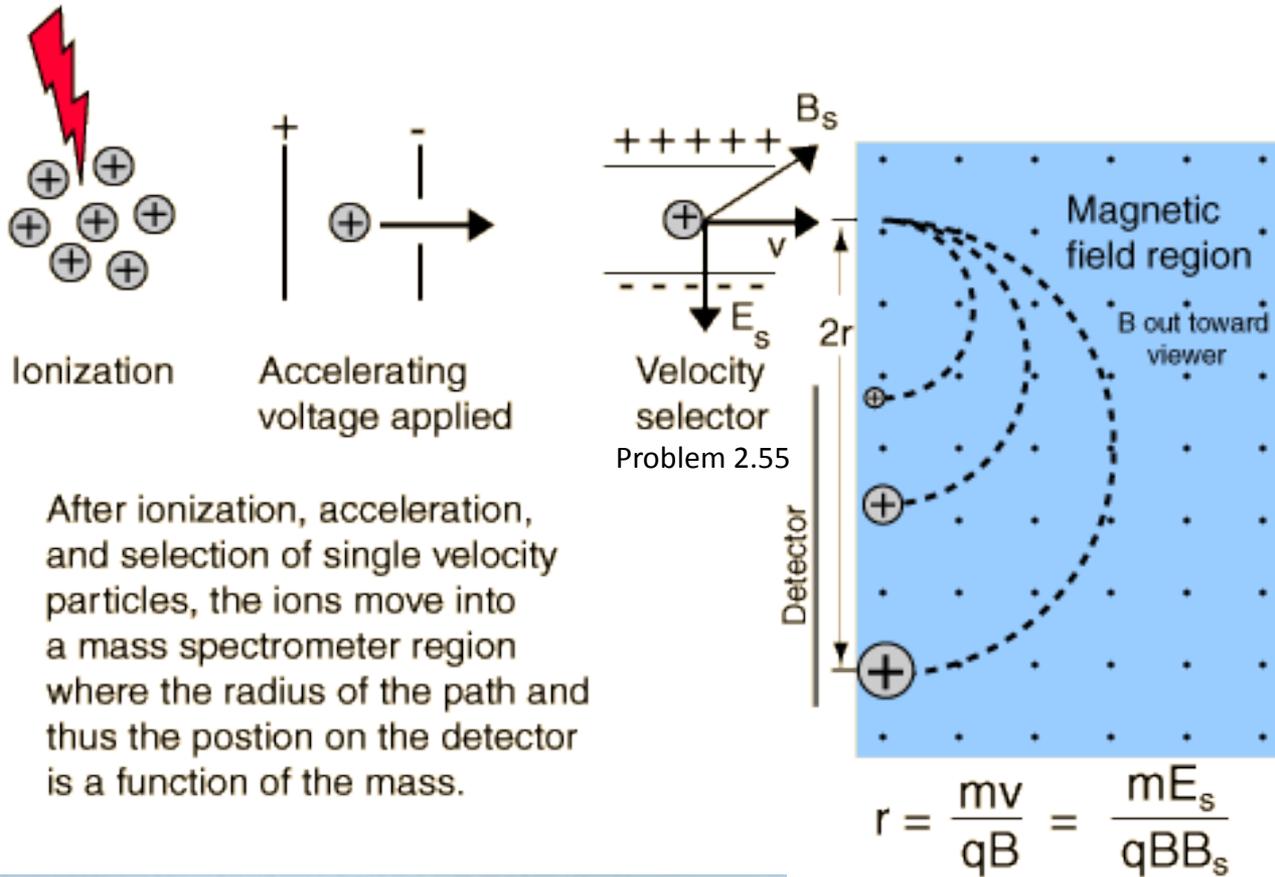
The Cyclotron



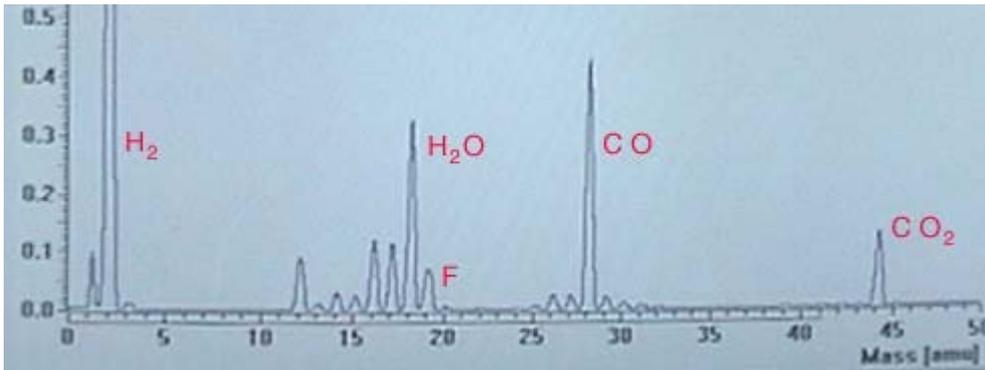
Exiting Beam

The cyclotron was invented and patented by Ernest Lawrence of the University of California, Berkeley, where it was first operated in 1932.

The Mass Spectrometer

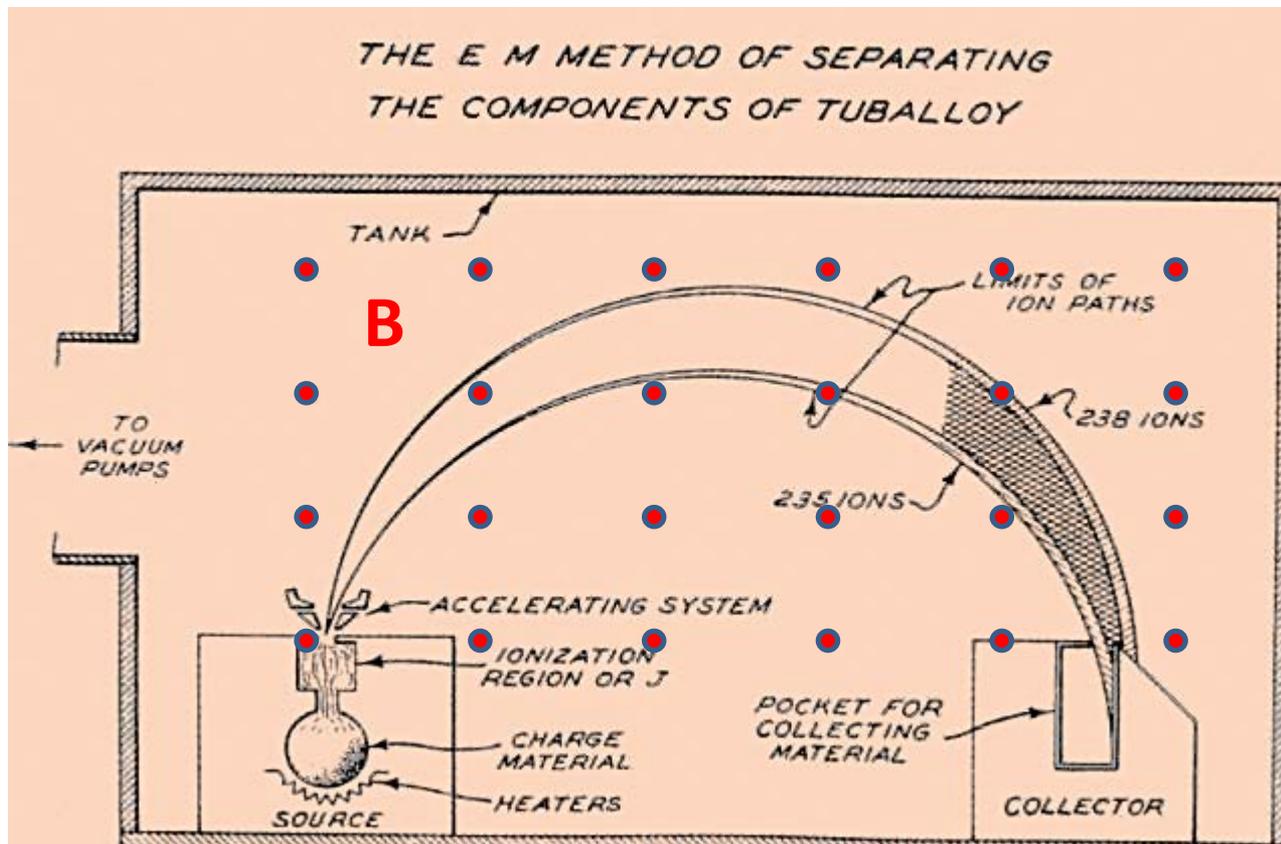


After ionization, acceleration, and selection of single velocity particles, the ions move into a mass spectrometer region where the radius of the path and thus the position on the detector is a function of the mass.

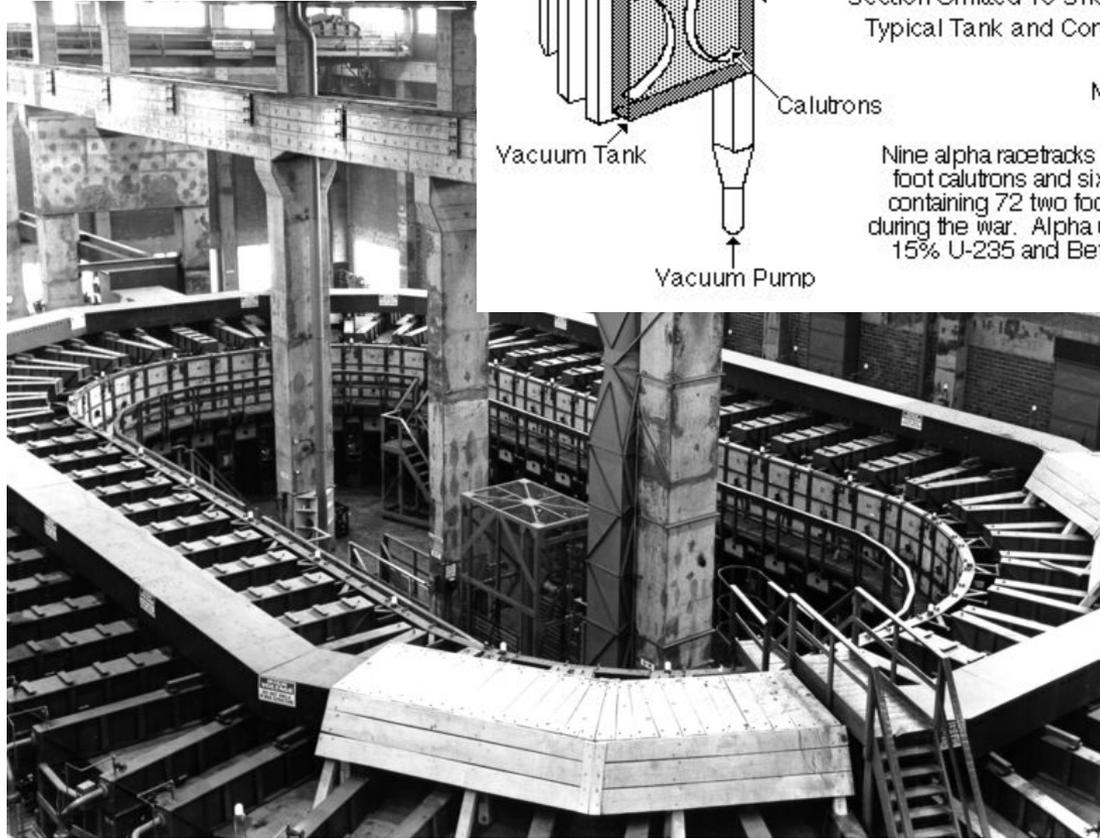
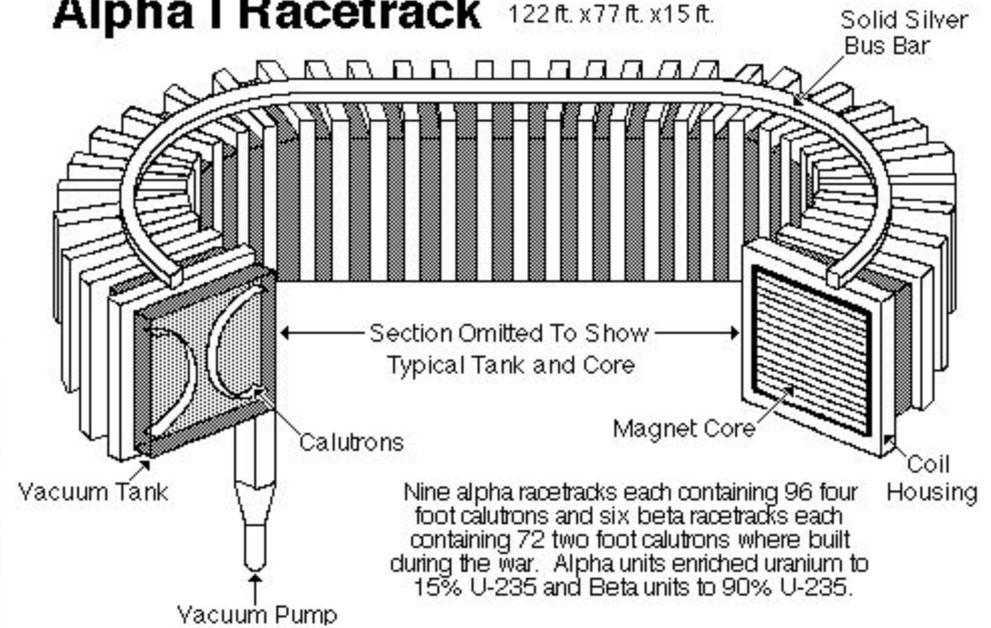


Residual gas analyzer mass spectrum of a UHV system

The Calutron – A Mass Spectrometer to Isolate ^{235}U Oak Ridge National Laboratory



Alpha I Racetrack 122 ft. x 77 ft. x 15 ft.



Alpha Track [Calutron](#) at the Y-12 Plant at Oak Ridge, Tennessee from the Manhattan Project, used for uranium enrichment by electromagnetic separation process.