Mass Spec

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October 2015

1 Introduction

Mass spectrometry (MS) is an analytical chemistry technique that helps identify the amount and type of chemicals present in a sample by measuring the mass-to-charge ratio and abundance of gas-phase ions.

2 Conclusion

A mass spectrometer can be used to analyze the comp position other sample material like new medicine or a meteorite the first step is to ionize sample family said the charged particle into the mass spectrometer for analysis the three main parts.The three main part that we need to study are accelerator,velocity selector and the circular motion. Firstly, we should look at the posse keeps, we need to apply a vote each to accelerate the charge.Then, only the charges has certain velocity can go straight through the region.(FB=Fe) Therefore, $q \times v \times B \times sin90$ = qE , so V=$\frac{E}{B}$. The FB direction go up if a positive charge experiences a downward electric force that means the charge must be had electric field E. The electric fiels must be in the same direction as the electric force. For the left part which is circular motion part, we should check forces to cancel the magnetic force.

$$\frac{1}{2}mv^2 = q\ \Delta V$$

$$\frac{q}{m} = \frac{v}{rB}$$

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References

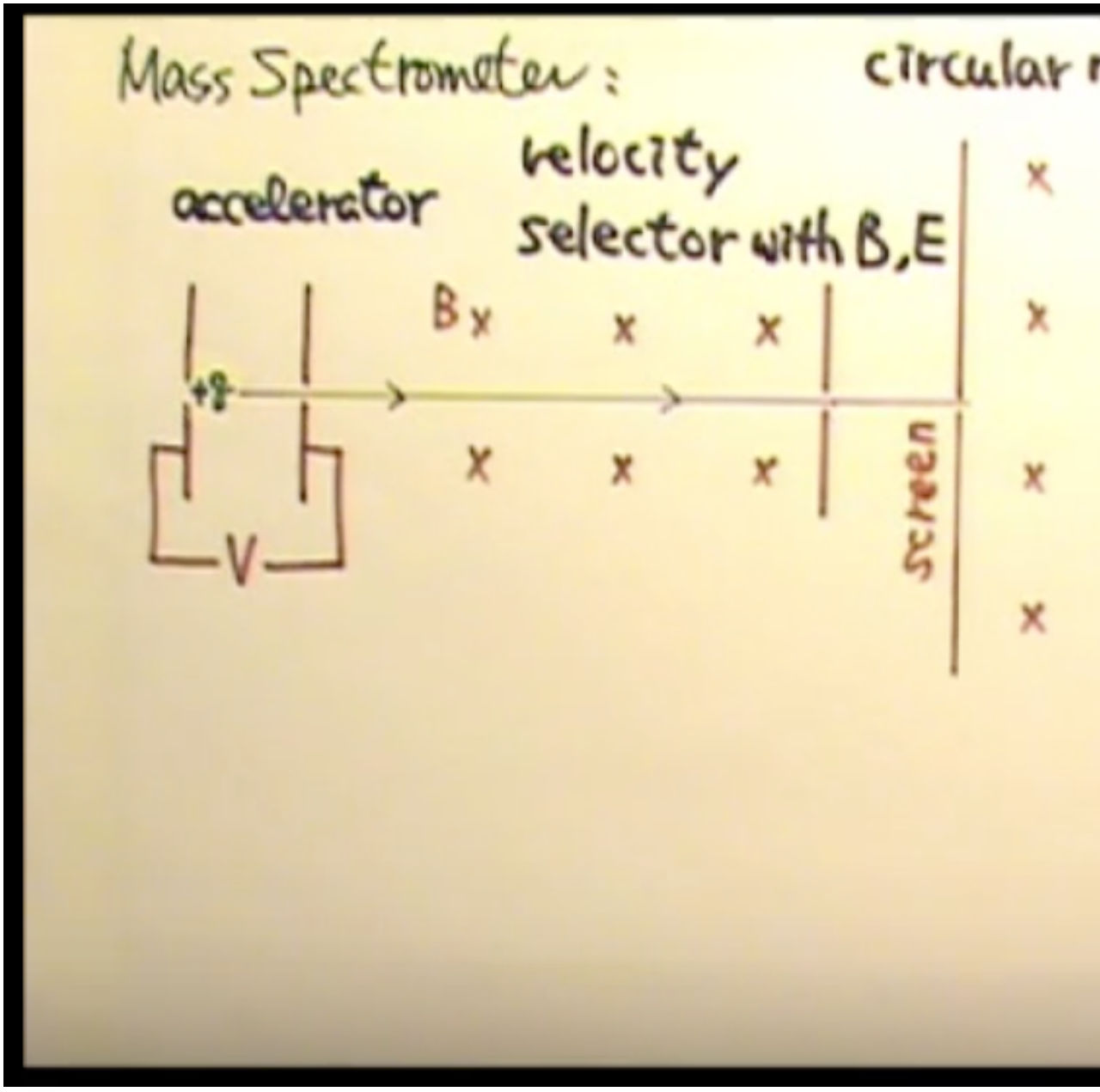

Figure 1: The mass spectrometry