

# Working principle diagram of magnetic spectroscopy analyzer

As the name implies, the mass analyzer uses magnetic field to separate ions of different  $m/z$  values (Figure 13). High voltage is first applied to the ions to accelerate them into the magnetic sector. A ...

The identification and characterization of signal regions in Nuclear Magnetic Resonance (NMR) spectra is a challenging but crucial phase in the analysis and determination of complex chemical...

Unpack the science of NMR spectroscopy: from fundamental physics and hardware components to the precise methods of molecular structure determination.

Illustration showing how the secondary ions that emerge from the electrostatic sector are further separated in the magnetic sector based on their mass:charge ratio. As the overwhelming majority ...

The EBE design has one electric sector positioned before and one after the magnetic sector. The first electric sector has demagnifying optics to give a high dispersion to magnification ratio, allowing high ...

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 ...

Older magnetic sector instruments use a photographic plate to simultaneously detect ions at different radii. Since each  $m/z$  has a different radius, they strike the photographic plate at a different location.

Magnetic sector analyzers use a permanent magnet or an electromagnet to cause the beam from the ion source to travel in a circular path, most commonly 180°, 90°, or 60°.

Mass Spectrometry (MS) refer as a analytical technique which used for measuring the mass-to-charge ( $m/z$ ) ratio of ions in a sample. It used for determining the molecular weight and ...

Double-focusing magnetic sector analyzers: These combine a magnetic field with an electric field to achieve higher resolution by focusing both the direction and velocity of the ions. The ...

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