

Title (en)
Improved methods of using ion trap mass spectrometers

Title (de)
Verfahren zum Betreiben eines Ionenfallen-Massenspektrometers

Title (fr)
Méthode d'utilisation d'un spectromètre de masse du type piège à ions

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Application
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Abstract (en)
[origin: EP0852390A1] Improved methods of using an ion trap mass spectrometer, whereby AC voltages supplemental to the AC trapping voltage are used for scanning the trap (10), for conducting chemical ionization experiments, and for conducting MSⁿ experiments, are shown. In one embodiment a non-resonant, low-frequency supplemental voltage is applied to the trap (10) causing trapped ions to undergo collision induced dissociation. Multiple generations of ion fragments may be simultaneously formed in this manner, thereby enabling MSⁿ experiments. The low-frequency supplemental field has the additional property of causing high mass ions to be ejected from the trap (10) as a function of the magnitude of the supplemental voltage. This property may be used to scan the trap (10), for example, by scanning the magnitude of the supplemental voltage. Likewise, when conducting chemical ionization experiments, this property may be used for eliminating unwanted high mass sample ions, formed during ionization of the reagent gas, from the trap (10).

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