

Title (en)

MASS SPECTROMETRY METHOD USING SUPPLEMENTAL AC VOLTAGE SIGNALS

Title (de)

MASSENSPEKTROMETRIEVERFAHREN MITTELS ZUSÄTZLICHER AC SPANNUNGSSIGNALE

Title (fr)

PROCEDE DE SPECTROMETRIE DE MASSE UTILISANT DES SIGNAUX DE TENSION AC SUPPLEMENTAIRES

Publication

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Application

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Abstract (en)

[origin: WO9215392A1] A mass spectrometry method in which one or more high power supplemental AC voltage signals and one or more low power supplemental AC voltage signals are applied to an ion trap (16). The frequency of each supplemental AC voltage is selected to match a resonance frequency of an ion having a desired mass-to-charge ratio. The low power supplemental voltage signals are applied for the purpose of dissociating specific ions (i.e., parent ions) within the trap, and the high power supplemental voltage signals are applied to resonate products of the dissociation process (i.e., daughter ions) so that they can be detected. In one class of embodiments, the high power voltage signals resonate daughter ions out from the trap for detection by an external detector (24). In another class of embodiments, each high power voltage signal resonates the daughter ions only to a degree sufficient for detection by an in-trap detector (which may comprise one or more of the electrodes (11-13) which define the trapping field, or may be mounted integrally with such electrodes).

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