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(71) Applicant: **THERMO FISHER SCIENTIFIC (BRE-
MEN) GMBH** [DE/DE]; Hanna-Kunath-Str. 11, 28199
Bremen (DE).

(72) Inventor: **COUZIJJN, Erik**; Hanna-Kunath-Str. 11, 28199
Bremen (DE).

(74) Agent: **BOULT WADE TENNANT LLP**; Salisbury
Square House, 8 Salisbury Square, London EC4Y 8AP
(GB).

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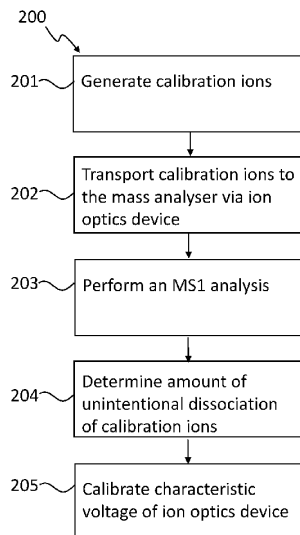
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(54) Title: METHOD OF CALIBRATING A MASS SPECTROMETER



(57) **Abstract:** A method of calibrating a mass spectrometer is provided. The method comprises generating calibration ions from an ion source. The calibration ions are transported from the ion source to a mass analyser of the mass spectrometer via an ion optics device. A characteristic voltage is applied to the ion optics device to control the transit of ions into the ion optics device and/or out of the ion optics device. The characteristic voltage applied results in an amount of unintentional dissociation of the calibration ions. An MS1 analysis of the calibration ions is performed using the mass analyser to obtain an MS1 spectrum of the calibration ions. The amount of unintentional dissociation of the calibration ions present in the MS1 spectrum is determined. The characteristic voltage of the ion optics device is calibrated based on the amount of unintentional dissociation of the calibration ions present in the MS1 spectrum to provide a target amount of unintentional dissociation of calibration ions during an MS1 analysis.

FIG. 2



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