

Title (en)

MASS SPECTROMETER AND LIQUID-METAL ION SOURCE FOR A MASS SPECTROMETER OF THIS TYPE

Title (de)

MASSENSPEKTROMETER UND FLÜSSIGMETALL-IONENQUELLE FÜR EIN SOLCHES MASSENSPEKTROMETER

Title (fr)

SPECTROMETRE DE MASSE ET SOURCE D'IONS A METAL LIQUIDE POUR SPECTROMETRE DE MASSE DE CE TYPE

Publication

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Application

EP 04740521 A 20040701

Priority

- EP 2004007154 W 20040701
- DE 10339346 A 20030825

Abstract (en)

[origin: US2016254134A1] The invention relates to a mass spectrometer comprising an ion source for producing a primary ion beam, which has a heatable ion emitter coated by a liquid metal layer essentially comprised of pure metallic Bismuth or of a low-melting-point alloy containing, in essence, Bismuth. A Bismuth ion mixed beam can be emitted by the ion emitter under the influence of an electric field. From the Bismuth ion mixed beam, one of a number of Bismuth ion types whose mass is a multiple of monatomic singly or multiply charged Bismuth ions Bi^{p+} , is to be filtered out in the form of a mass-pure ion beam that is solely comprised of ions of a type Bin^{p+} , in which $n \geq 2$ and $p \geq 1$, and n and p are each a natural number.

IPC 8 full level

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US 6002128 A 19991214 - HILL ROWLAND [GB], et al

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