

Title (en)

Time-of-flight mass spectrometer ion source for gas sample analysis

Title (de)

Flugzeitmassenspektrometerionenquelle zur Analyse von Gasproben

Title (fr)

Source ionique pour spectromètre de masse à temps de vol analysant des échantillons gazeux

Publication

EP 1052672 B1 20041013 (FR)

Application

EP 00401028 A 20000413

Priority

FR 9905088 A 19990422

Abstract (en)

[origin: US2003057378A1] In accordance with the invention, the ion source of a time-of-flight mass spectrometer includes an electron gun having an electron source and at least one electrode for conditioning the flow of electrons, followed by at least one microchannel wafer for generating a pulsed secondary electron beam containing a greater number of electrons from a pulsed primary electron beam. The secondary electron beam enters a gas ionization area of an ion gun which produces a flow of ions which is then passed through the flight tube in order to be analyzed by an ion detector. This provides a high-performance ion source which is compact, sensitive and easy to integrate.

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