BACKGROUND NOISE CORRECTION IN QUADRUPOLE MASS SPECTROMETERS

ABSTRACT OF THE DISCLOSURE

In a quadrupole mass spectrometer, which measures ion currents of a single mass with substantially constant RF and DC voltages during a measuring period and measures ions of different masses by varying the RF and DC voltages, a statistical evaluation is performed during data acquisition by a determination of the distribution of the measured and digitized noise values around an average noise level in the mass spectrometer output signal. The determined noise levels are subtracted from the signal output values separately for each measurement period.

Figure 3