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(54) **INTERFACE FOR THE RAPID ANALYSIS OF LIQUID SAMPLES BY ACCELERATOR MASS SPECTROMETRY**

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H01J 49/04 (2006.01)

(52) **U.S. Cl.**
USPC **250/288**; 250/282

(58) **Field of Classification Search**
USPC 250/281, 282, 288
See application file for complete search history.

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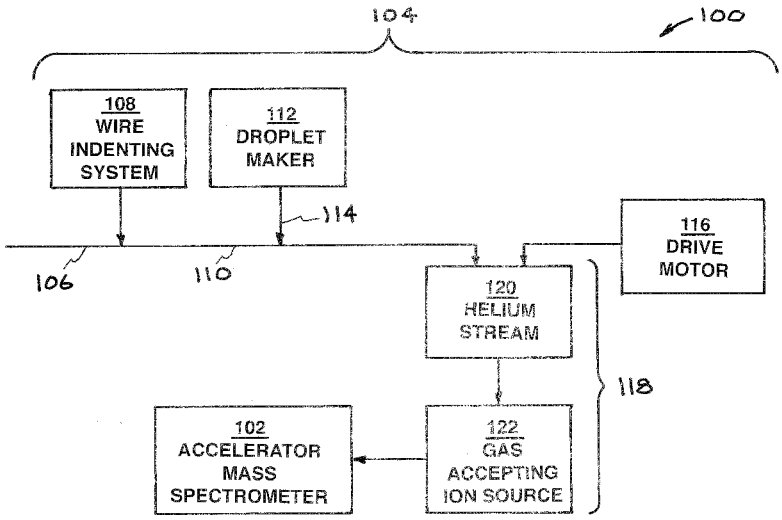
(57) **ABSTRACT**

An interface for the analysis of liquid sample having carbon content by an accelerator mass spectrometer including a wire, defects on the wire, a system for moving the wire, a droplet maker for producing droplets of the liquid sample and placing the droplets of the liquid sample on the wire in the defects, a system that converts the carbon content of the droplets of the liquid sample to carbon dioxide gas in a helium stream, and a gas-accepting ion source connected to the accelerator mass spectrometer that receives the carbon dioxide gas of the sample in a helium stream and introduces the carbon dioxide gas of the sample into the accelerator mass spectrometer.

2 Claims, 16 Drawing Sheets