(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
10 March 2005 (10.03.2005)

(51) International Patent Classification:
H01J 49/16,
49/30

(21) International Application Number:
PCT/US2004/027615

(22) International Filing Date:
26 August 2004 (26.08.2004)

(25) Filing Language:
English

(26) Publication Language:
English

(30) Priority Data:
60/497,799
26 August 2003 (26.08.2003) US

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(81) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(54) Title: MASS SPECTROMETER WITH LIGHT SOURCE AND/OR DIRECT CHARGE MEASURING

(57) Abstract: A mass spectrometer (10) replaces a filament with a light source (20), for example, a UV light source such as a UV-laser or UV-lamp to increase reliability and potentially reduce fragmentation, especially in the case of one-photon-ionization. The mass spectrometer may replace a micro-channel based position sensitive ion detection with a direct charge measuring device, such as a shift register type strip charge detector or a micro-machined faraday cup detector array.

[Continued on next page]
Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
6 October 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
## INTERNATIONAL SEARCH REPORT

### A. CLASSIFICATION OF SUBJECT MATTER

**IPC 7**  H01J49/16  H01J49/30

According to International Patent Classification (IPC) or to both national classification and IPC.

### B. FIELDS SEARCHED

**Minimum documentation searched (classification system followed by classification symbols)**

**IPC 7**  H01J

**Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched**

**Electronic data base consulted during the international search (name of data base and, where practical, search terms used)**

EPO-Internal, INSPEC, COMPENDEX, WPI Data, PAJ

### C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<td>X</td>
<td>US 3 478 204 A (WILSON M. BRUBAKER ET AL) 11 November 1969 (1969-11-11) figure 3; column 1, line 31 - 63; column 3, line 30 - 46; column 3, line 70 - column 4, line 24</td>
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Date of the actual completion of the international search: 4 July 2005

Date of mailing of the international search report: 29/07/2005

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