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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.

(54) Title: INSTRUMENTATION, ARTICLES OF MANUFACTURE, AND ANALYSIS METHODS

(57) Abstract: Analysis methods are provided that include generating a sample data set using a sample, the sample data set comprising first and second data sets, wherein each of the first and second data sets comprises at least one of an analytical parameter and a sample characteristic acquired using the analytical parameter; and using the first and the second data sets, identifying the sample. Instruments including an ionization source configured to apply different ionization energies to a sample to provide different sample characteristics, and processing circuitry configured to process the different sample characteristics to identify the sample are provided.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H01J 49/00
US CL : 250/282, 281,288,286

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)

U.S. : 250/282, 281,288,286

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 practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category *</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y,P</td>
<td>US 6,717,130 B2 (Bateman et al) 06 April 2004 (06.04.2004), col.6, lines 25-57</td>
<td>2,12,17-18, and 23-26</td>
</tr>
<tr>
<td>X</td>
<td>US 6,541,765 B1 (Vestal) 01 April 2003 (01.04.2003), see col.5, lines 45-54, col.6, lines 41-59, col.8, lines 40-43</td>
<td>1,-,3-11,13-16,19-22, and 27-51</td>
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Further documents are listed in the continuation of Box C.

See patent family annex.

Date of the actual completion of the international search

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Date of mailing of the international search report

23 JUN 2005

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