Abstract: The present invention includes methods and apparatus for continuous glucose monitoring of a patient. In one aspect a glucose monitor includes a plurality of substantially cylindrical tissue piercing elements adapted to pierce the stratum corneum and enter the epidermis, allowing for the diffusion of glucose from the interstitial fluid into the glucose monitors described herein. In another aspect of the invention, a glucose monitor includes a deformed substrate layer defining a plurality of tissue piercing elements.
## INTERNATIONAL SEARCH REPORT

### A CLASSIFICATION OF SUBJECT MATTER

**IPC(8) - G01F 1/64; G01N 33/487 (2008.04)**  
**USPC - 205/792**

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(8) - G01F 1/64, G01N 33/487 (2008.04)  
USPC - 205/792

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)

**MicroPatent**

### 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>
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</thead>
<tbody>
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<td></td>
<td>4-5,16-17, 25-26, 39, 45-46, 48-50, 60-61, 69-70, 83</td>
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* Further documents are listed in the continuation of Box C

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Date of the actual completion of the international search  
**02 May 2008**

Date of mailing of the international search report  
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