DENTAL APPARATUS WITH OZONE IRRIGATION SYSTEM

A dental apparatus is provided with an ozone irrigation system. Ozonated water is produced in the irrigation system and supplied to the dental apparatus. The dental apparatus can have a handpiece that drives a cannulated instrument, such as a cannulated file. The ozonated water can be supplied to an axial passage formed in the instrument. Radial ports are provided through the instrument such that the ozonated water can spray radially outward into a treatment zone during movement of the instrument. The ozonated water thereby can lubricate and cool the treatment zone while also providing advantageous cleaning of the zone.
**INTERNATIONAL SEARCH REPORT**

**A. CLASSIFICATION OF SUBJECT MATTER**
- **IPC(7)**: A61C 5/02
- **US CL**: 433/81, 224

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.**: 433/81, 224, 102

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</td>
<td>US 6,224,378 B1 (VALDES et al.) 01 May 2001 (01.05.2001), see entire document.</td>
<td>1, 2, 4, 5 and 16-20</td>
</tr>
<tr>
<td>Y</td>
<td>US 6,132,629 A (BOLEY) 17 October 2000 (17.10.2000), see entire document.</td>
<td>1, 2, 4, 5 and 16-20</td>
</tr>
<tr>
<td>Y</td>
<td>US 4,021,921 A (DETAILLE) 10 May 1977 (10.05.1977), see entire document.</td>
<td>8 and 9</td>
</tr>
<tr>
<td>Y</td>
<td>US 5,873,717 A (BEHRINGER) 23 February 1999 (23.02.1999), see entire document.</td>
<td>10 and 11</td>
</tr>
</tbody>
</table>

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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Date of the actual completion of the international search: 01 September 2005 (01.09.2005)

Date of mailing of the international search report: 22 SEP 2005

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