Title: OPTICAL COUPLER FOR ROTATING CATHETER

Abstract: An optical coupler for coupling to a rotating catheter has a housing with a rotatable distal face and a stationary proximal face. The distal face has an eccentric port and a central port. A lens is disposed inside the housing to intercept a rotating collection beam emerging from the eccentric port and to re-direct the collection beam to a focus proximal to the lens as the collection beam rotates. A beam re-director disposed between the lens and the distal face is oriented to direct a delivery beam toward the central port.
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

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.

(88) Date of publication of the international search report:
24 March 2005
# INTERNATIONAL SEARCH REPORT

**International application No.**

PCT/US03/38562

## A. CLASSIFICATION OF SUBJECT MATTER

<table>
<thead>
<tr>
<th>IPC(7)</th>
<th>A 61 B 6/00</th>
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</table>

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)**


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

Electronic database 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>X</td>
<td>US 6,208,886 B1 (ALFANO et al) 27 March 2001 (27.03.2001) column 4, line 50 -</td>
<td>1-38</td>
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<td>column 5, line 5, column 7, lines 6-12; column 7, line 66 - column 8, line 62,</td>
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<td>Figure 1.</td>
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<td>X</td>
<td>US 6,445,939 B1 (SWANSON et al) 3 September 2002 (03.09.2202) entire document</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


Date of mailing of the international search report

19 JAN 2005

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