

Title (en)  
INTEGRAL END STRUCTURE FOR MEDICAL LASER WAVEGUIDE

Publication  
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Application  
**EP 90913418 A 19900817**

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Abstract (en)  
[origin: WO9102562A1] End structures for a medical laser fiber (38) integrally formed from a molten portion of the fiber (38) have sides free from polishing abrasions. The end structure may assume a frustoconical shape (28, 60) with sides (44) tapering smoothly from the fiber (38) to a flat surface (48) normal the axis of the fiber (38). Alternatively, a spherical (184) portion having a diameter (E1) greater than the fiber (38) is disposed concentrically with the fiber (38). The end structure may include a bend portion (132, 152, 162, 202) diverting therefrom at a bend angle (B, B1, B2, B3), being radially coextensive with the end of the fiber (38), and ending in a tip that assumes a spherical shape (208) or a frustoconical shape (134, 154, 164) that tapers to a flat surface (142) normal the plane of the bend portion (132) and parallel the fiber (38). An alternate tip embodiment has sides (104) that flare smoothly from the fiber (38) to a terminus (100) having a diameter (D3) greater than the diameter of the fiber (38).

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Citation (search report)  
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• [X] GB 2154761 A 19850911 - QUENTRON OPTICS PTY LTD  
• [X] EP 0278213 A2 19880817 - ITT [US]  
• [A] JP S62184407 A 19870812 - HITACHI LTD  
• [A] JP S62201961 U 19871223  
• [AD] WO 8505262 A1 19851205 - SURGICAL LASER TECHNOLOGIES OH [US]  
• [A] DE 3532604 A1 19860327 - OLYMPUS OPTICAL CO [JP]  
• See references of WO 9102562A1

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