

Title (en)  
LIQUID CORE WAVEGUIDE

Title (de)  
WELLENLEITER MIT FLÜSSIGEM FASERKERN

Title (fr)  
GUIDE D'ONDES A AME LIQUIDE

Publication  
**EP 1116057 A1 20010718 (EN)**

Application  
**EP 99921551 A 19990430**

Priority  
• US 9909395 W 19990430  
• US 8384398 P 19980501

Abstract (en)  
[origin: WO9957584A1] A liquid core optical wave guide, particularly for long pathlength absorbance spectroscopy. The liquid core waveguide has a relatively long pathlength and can be configured to fit within a relatively small space. The waveguide comprises a length of tubing (12) and a liquid core confined within the length of tubing (12), the tubing (12) having an index of refraction no less than the index of refraction of water, and the tubing (12) having a good flexibility. Preferably, the length of tubing (12) is several meters and a flexibility and structural integrity such that a cylindrical length of the tubing (12) having a liquid core diameter (d) of about 560  $\mu$ m, an outer diameter (D) of about 800  $\mu$ m, and a length of about 5 m can be coiled within a volume space of about 1.57 cubic inches, can support a body of aqueous medium over its length without crimping.

IPC 1-7  
**G02B 6/02**; G01N 1/10; G01N 21/85

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