

**OPTICAL CIRCUIT FOR SENSING A BIOLOGICAL ENTITY IN A FLUID
AND METHOD OF CONFIGURING THE SAME**

ABSTRACT

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An optical circuit for sensing a biological entity in a fluid and a method of configuring an optical circuit for sensing a biological entity in a fluid are provided. The optical circuit includes a sensing arrangement including a reference arm having a reference waveguide and a sensing arm having a waveguide; wherein lengths of the reference waveguide and
10 the waveguide are configured in accordance with a temperature dependency reduction criterion.

Figure 1