OPTICAL-BASED SENSING DEVICES

Abstract

The present invention provides an electro-optical sensing device (110) for detecting the presence or concentration of an analyte. More particularly, the invention relates to optical -based sensing devices (110) which are characterized by being totally self-contained, with a smooth and rounded oblong, oval or elliptical shape (e.g., a bean- or pharmaceutical capsule- shape) and a size which permits the device to be implanted in humans for in- situ detection of various analytes . The sensing devices of the invention comprise a sensor housing (112) in which a circuit board (170), a radiation source (118), and a photodetector (120a, 120b) are mounted. The radiation source is attached to a side of a support member (174) above said circuit board (170). Alternatively, a base having a photodetector, filter, and radiation source mounted thereon, is attached to an end position of the circuit board.

Fig. 1