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(54) **Title:** ANALYTE SENSOR

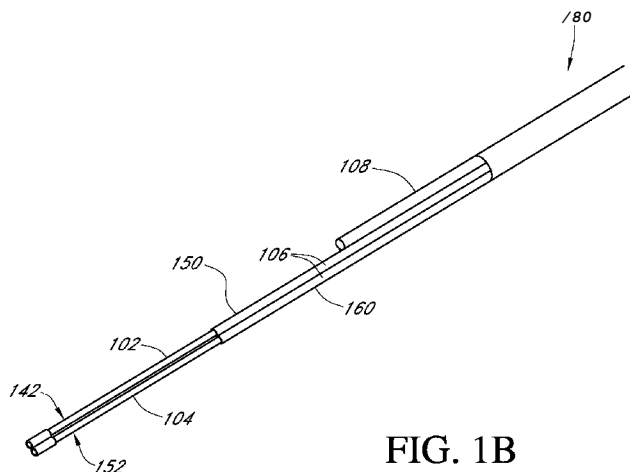


FIG. 1B

(57) **Abstract:** Devices and methods are provided for continuous measurement of an analyte concentration. The device can include a sensor having a plurality of sensor elements, each having at least one characteristic that is different from other sensor(s) of the device. In some embodiments, the plurality of sensor elements are each tuned to measure a different range of analyte concentration, thereby providing the device with the capability of achieving a substantially consistent level of measurement accuracy across a physiologically relevant range. In other embodiments, the device includes a plurality of sensor elements each tuned to measure during different time periods after insertion or implantation, thereby providing the sensor with the capability to continuously and accurately measure analyte concentrations across a wide range of time periods. For example, a sensor system (180) is provided having a first working electrode (150) comprising a first sensor element (102) and a second working electrode (160) comprising a second sensor element (104), and a reference electrode (108) for providing a reference value for measuring the working electrode potential of the sensor elements (102, 104).



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c. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2009-0099435 AI (SAY JAMES et al.) 16 April 2009 See abstract ; paragraph [0007] , [0069]-[0072] , [0127] -[0128] , [0225] , [0232H0240] ; claims 1, 121-140 ; figures 1-2 , 18	23 , 29 , 30 1-22 , 24-28 , 31
X A	US 2003-0050546 AI (SHASHI P. DESAI et al.) 13 March 2003 See abstract ; claims 1-5 , 10 ; figures 1-2	23 1-22 , 24-31
A	US 2008-0287766 AI (RASDAL ANDREW et al.) 20 November 2008 See abstract ; claim 1 ; figures 1-2	1-31
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
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Information on patent family members

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