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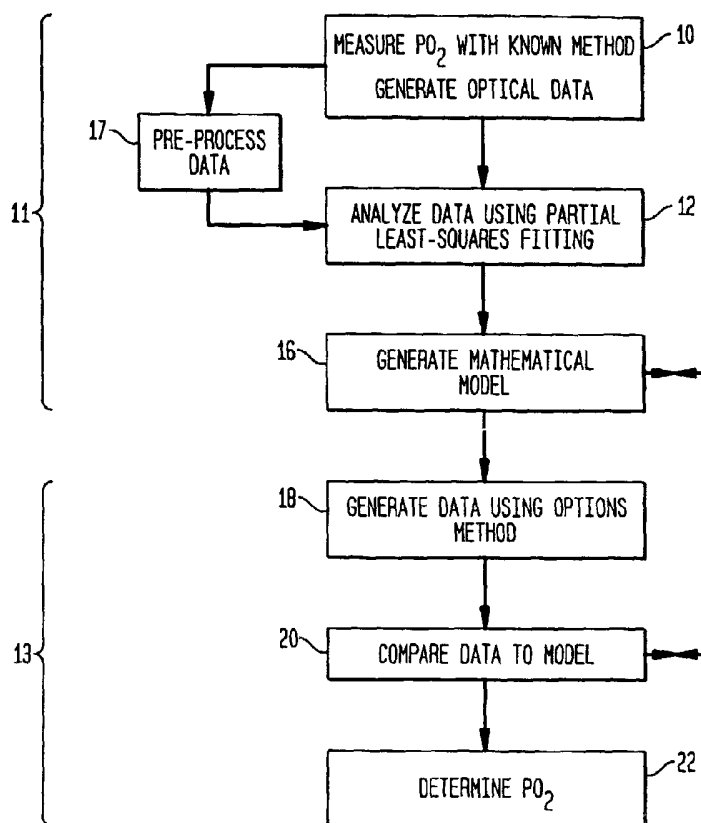
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[Continued on next page]

(54) Title: TISSUE OXYGEN MEASUREMENT SYSTEM



(57) Abstract: A device and method in accordance with the invention for determining the oxygen partial pressure (PO₂) of a tissue by irradiating the tissue with optical radiation such that the light is emitted from the tissue, and by collecting the reflected or transmitted light from the tissue to form an optical spectrum (18). A spectral processor (20) determines the PO₂ level in tissue by processing this spectrum with previously constructed spectral calibration model (16). The tissue may, for example, be disposed underneath a covering tissue, such as skin, of a patient, and the tissue illuminated and light collected through the skin. Alternatively, direct tissue illumination and collection may be effected with a hand-held or endoscopic probe. A preferred system also determines pH from the same spectrum, and the processor may determine critical conditions and issue warnings based on parameter values.



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B. FIELDS SEARCHED

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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,355,880 A (THOMAS et al) 18 October 1994 (18.10.1994), see entire document.	1-24
X	US 5,435,309 A (THOMAS et al) 25 July 1995 (25.07.1995), see entire document.	1-24

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
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