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United States Patent [19] Pologe

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[54] ARTERIAL BLOOD MONITORING PROBE

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[21] Appl. No.: **45,962**
[22] Filed: **Apr. 12, 1993**

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Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 832,551, Feb. 7, 1992.
[51] Int. Cl.³ **A61B 5/00**
[52] U.S. Cl. **128/633; 128/665; 356/41**
[58] Field of Search **128/633-634, 128/664-667; 356/39-41**

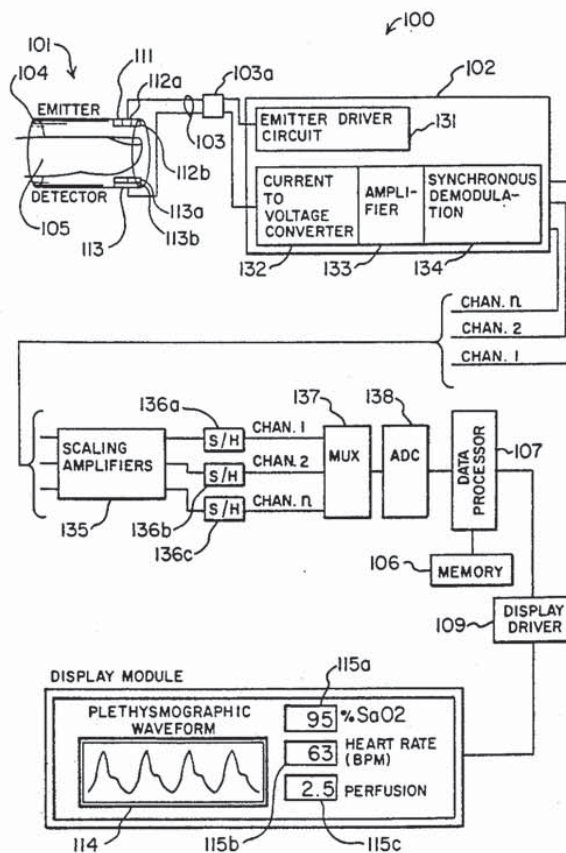
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[57] ABSTRACT

This arterial blood monitoring system takes advantage of the basic statistical property that arterial blood contains a plurality of dominant absorbers, whose measured light absorption spectra appear as a constant over a short interval of time. By measuring the transmitted light as it varies with arterial pulsation at selected wavelengths of light, over a common light path, the relative amount of these dominant absorbers in the arterial blood can noninvasively be determined. To ensure the common light path, a sandwich construction light detector is used.

10 Claims, 4 Drawing Sheets

Apple Inc.
APL1019

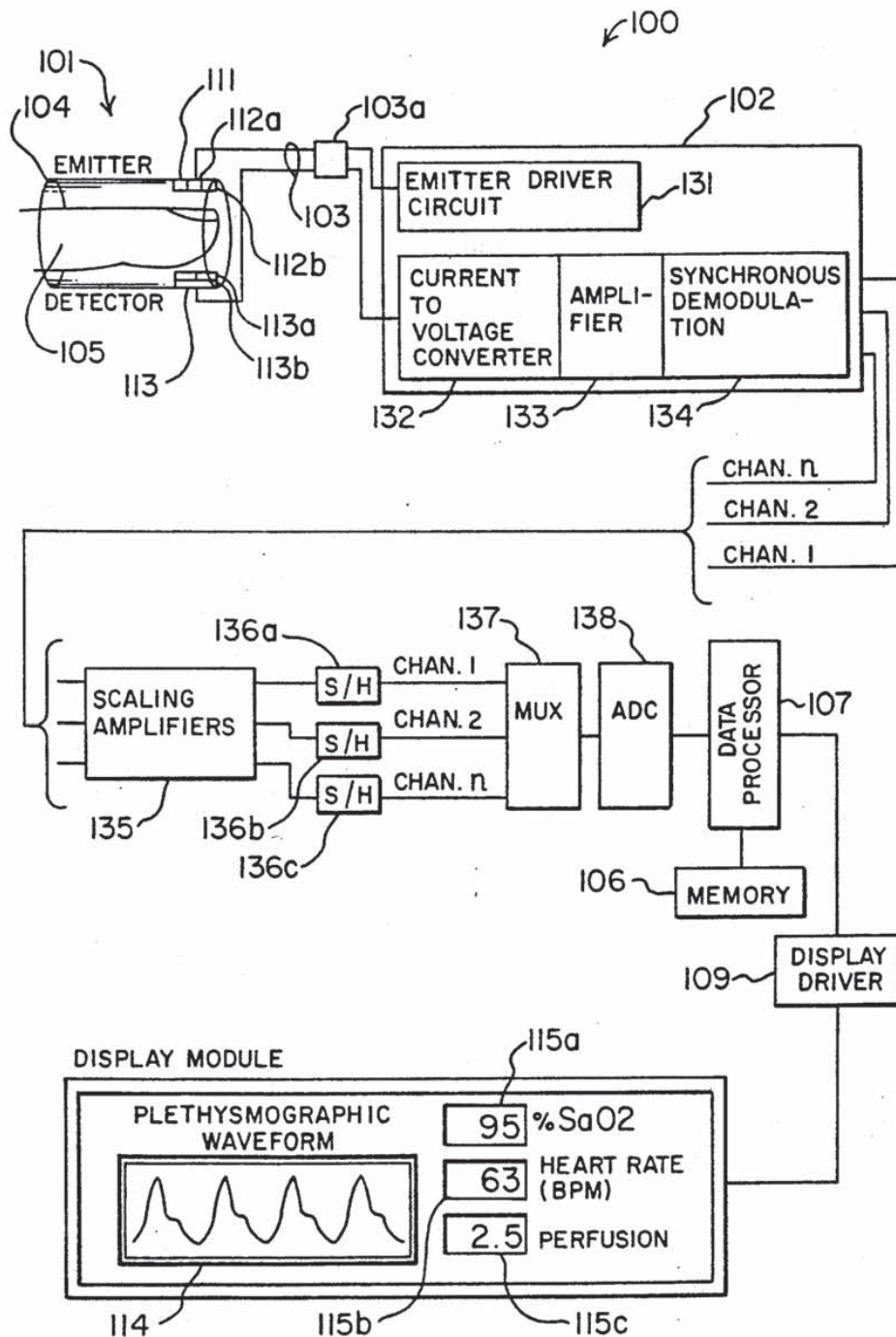


FIG. 1.

FIG. 2.

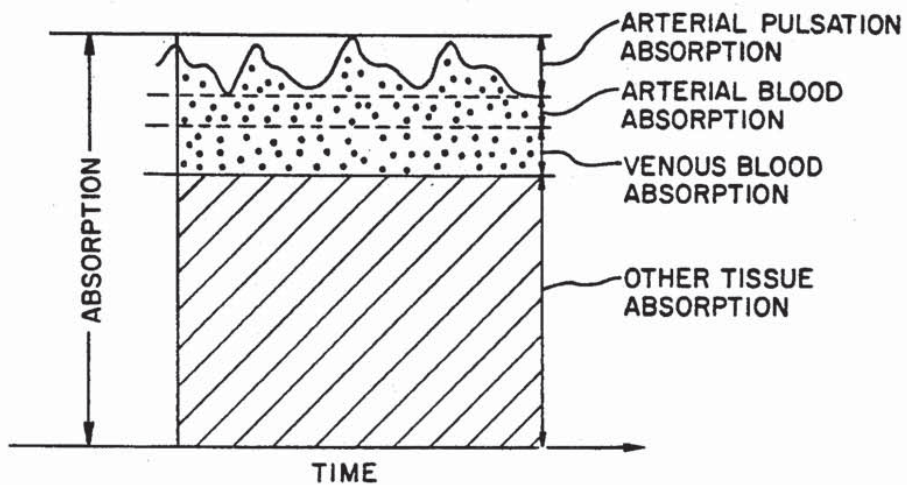
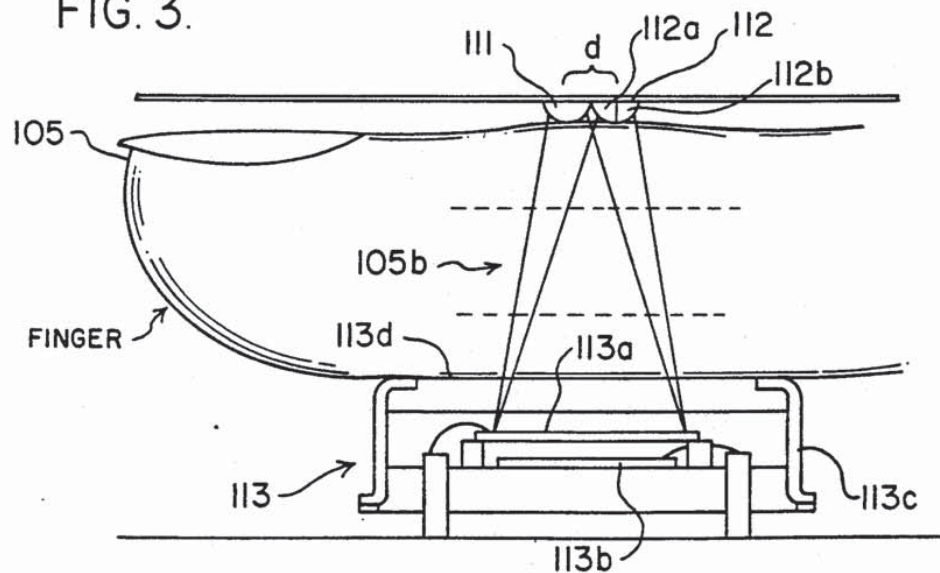


FIG. 3.



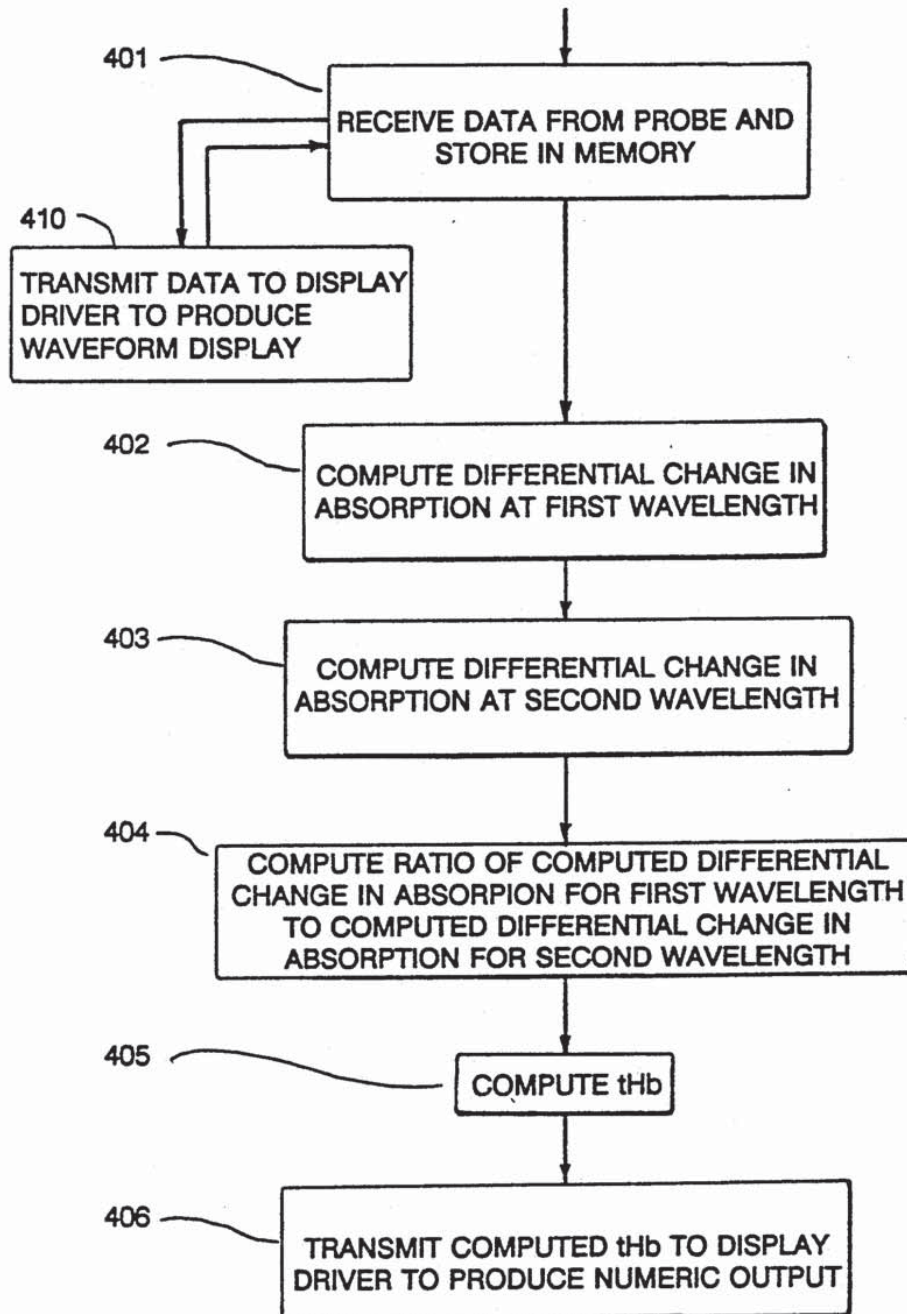


FIGURE 4

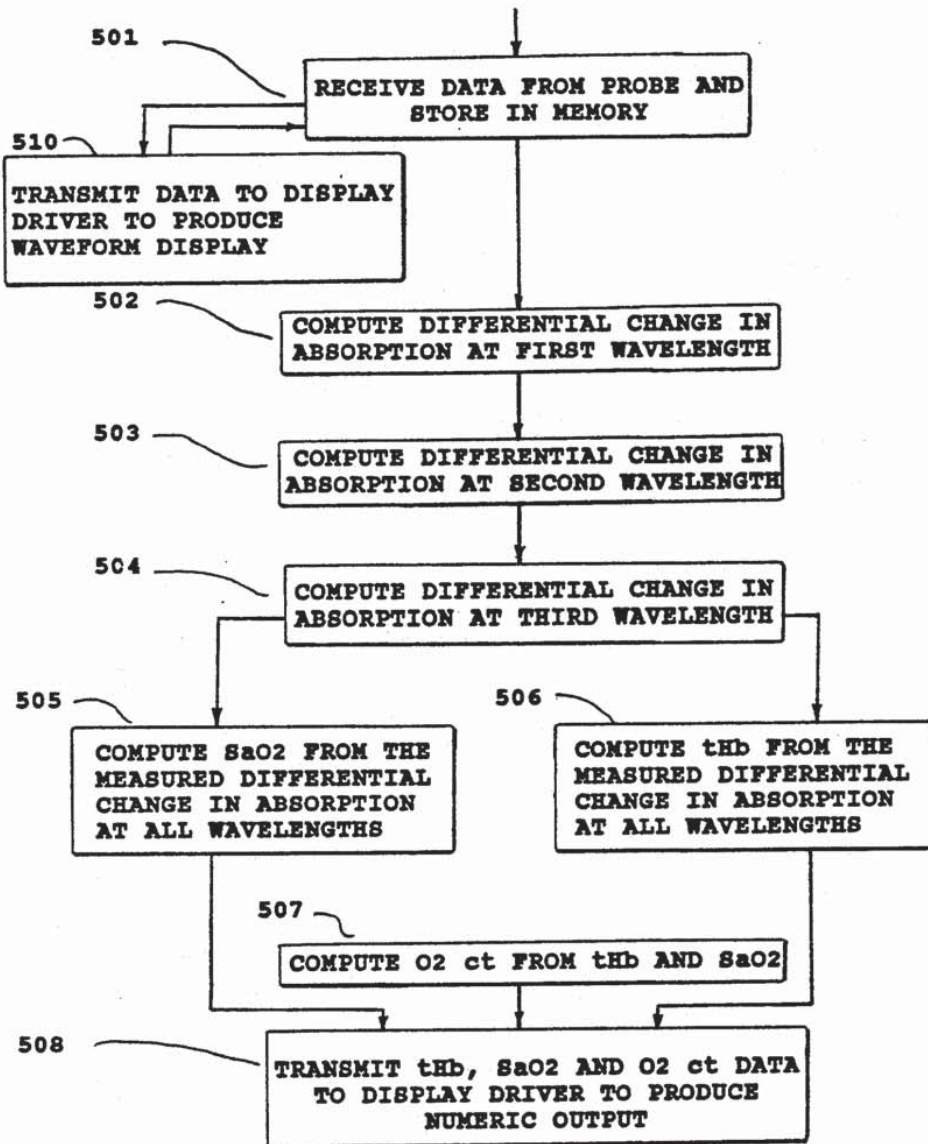


FIGURE 5

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