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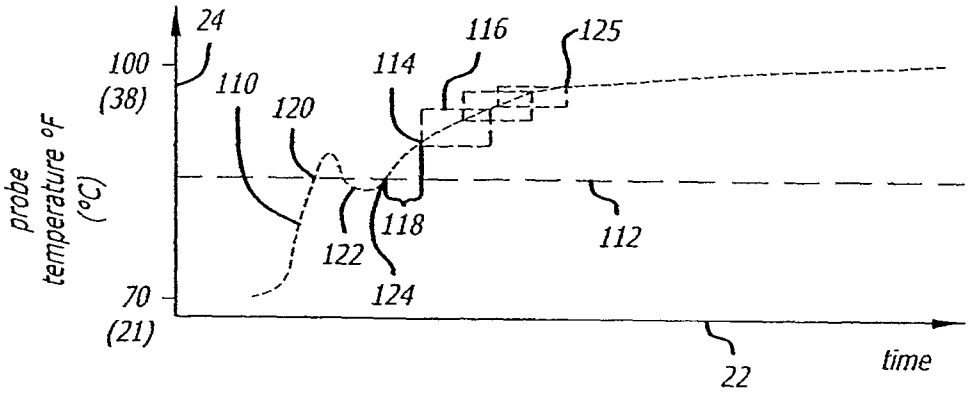
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(54) Title: TEMPERATURE PREDICTION SYSTEM AND METHOD



(57) Abstract: A thermometer system and method that rapidly predict body temperature based on the temperature signals received from a temperature sensing probe when it comes into contact with the body. A nonlinear, multi-parameter curve fitting process is performed and depending on the errors in the curve fit, parameters are changed or a prediction of the temperature is made. Criteria exist for the differences between the curve fit and the temperature data. The processor switches to a Continuous Monitor State if the curve fit over a limited number of time frames is unacceptable. Determining the start time on which the measurement time frame for prediction is based is performed by tissue contact threshold coupled with a prediction time delay.

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