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(54) **Title:** METHOD AND DEVICE FOR MEASURING OXYGEN SATURATION IN BLOOD

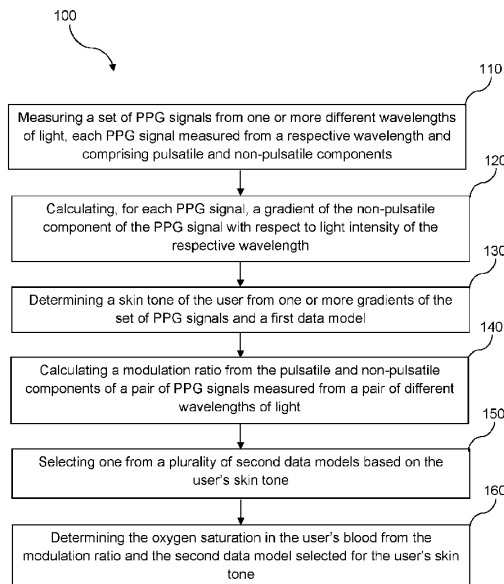


Figure 1

(57) **Abstract:** The present disclosure generally relates to a computerized method (100) and a device for measuring oxygen saturation in a user's blood. Measure (110) PPG signals from one or more different wavelengths of light, each PPG signal comprising pulsatile and non-pulsatile components. Calculate (120), for each PPG signal, a gradient of the non-pulsatile components of the PPG signal with respect to light intensity of the wavelength. Determine (130) the user's skin tone from one or more gradients of the PPG signals and a first data model. Calculate (140) a modulation ratio from the pulsatile and non-pulsatile components of a pair of PPG signals measured from different wavelengths. Select (150) a second data model based on the user's skin tone. Determine (160) the oxygen saturation in the user's blood from the modulation ratio and the selected second data model.

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