Technology: Method and pulse oximeter apparatus using chemical heating

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Abstract Method and apparatus for providing reliable blood oxygen (SaO2) and heart rate measurements includes a chemical energy heating source in conjunction with a harness that is adapted to secure the chemical energy heating source and a pulse oximeter probe proximate to a region of the body which is to be warmed prior to measurement. Preferably, the chemical energy heating source is in the form a mixture including a metal powder, which releases heat at a predetermined rate via oxidation of the metal powder when exposed to the atmosphere. The apparatus may be designed to be reusable or disposable and can be used in a transmission or reflectance mode, or both