

## Method and Apparatus for Arterial and Venous Oxygenation Monitoring

### Disclosure Number

201403236

### Technology Summary

Our invention is unique in the way the signal is processed to extract venous and arterial oxygen saturation non-invasively. Current devices use a part of the collected signal (AC pulsatile signal) and ignore the remainder of the signal that contains a substantial amount of information. We have recently confirmed that both parts of the signal (AC and DC) carry information about the oxygenation status and using the proposed method, the signal can be processed to determine arterial and venous oxygenation. In addition, an advantage of this technique is that the signals used are found in all vascular networks in our body, unlike some proposed methods that use the respiratory rate which varies depending on the measurement site.

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