

32.Functional images of local O2 contents and O2 gradients in intact human skin

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Abstract:

Two-dimensional functional images of local O₂ supply parameters in intact forehead skin of human volunteers were constructed on the basis of optical monitoring by the micro-lightguide spectrometer (EMPHO II SSK). The different parameters obtained by optical measurements, such as hemoglobin concentration and oxygenation, O₂ content, as well as local O₂ gradients in areas of 10 by 10 mm are processed by means of new imaging techniques. The results reveal that pronounced differences between oxygenation of healthy skin of young and elder volunteers do exist. There is evidence that regulation of capillary flow in skin of elder volunteers might be altered