

Title (en)  
METHOD AND MEASUREMENT DEVICE FOR RECORDING MEASUREMENT SIGNALS FROM VITAL TISSUE

Title (de)  
VERFAHREN UND MESSEINRICHTUNG ZUR ERHEBUNG VON MESSSIGNALEN AUS VITALEM GEWEBE

Title (fr)  
PROCÉDÉ ET DISPOSITIF DE MESURE POUR RELEVÉ DES SIGNAUX DE MESURE DANS UN TISSU VITAL

Publication  
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Application  
**EP 09716005 A 20090225**

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Abstract (en)  
[origin: WO2009106314A1] The invention is directed to a method and a measurement device for recording spectrometric measurement signals from vital tissue. The object of the invention is to provide solutions by which, in the course of a spectrometric measurement, it is possible to generate measurement values which, compared to aforementioned previous recording methods, provide more comprehensive information. According to the invention, this object is achieved by a method which generates spectrometric measurement signals and in which light is coupled into an area of vital tissue to be examined, reflected light issuing as such from the tissue area to be examined is fed to a spectrometry device, and the spectrometry device generates measurement signals which as such represent the intensity of the reflected light with respect to the wavelength, wherein the measurement proceeds in such a way that it extends over a period of time, and within this period of time the presence of haemoglobin in the examined tissue section is actively changed by changing the tissue pressure, wherein the spectra determined in succession for different tissue pressures are used in order to determine changes in the spectra induced by the haemoglobin concentration, and, from these different spectra, the concentrations of selected substances in the tissue section are calculated. In this way, it is advantageously possible to generate, in relatively quick succession, several spectra relating to the tissue section under examination, wherein these spectra have differences ("distortions") caused by actively induced changes of the tissue pressure, and said differences as such are sufficient for determining the concentration of substances to be detected within the vascularizing areas of the tissue system.

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