

# Measurements on skin tissue with the spectroscopic method of Diffuse Reflectance: A first preliminary approach

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## Abstract

The spectroscopic method of diffuse reflectance in the VIS-NIR spectral range is offered as a method for the examination in vivo of human tissue, like the skin tissue, for collection of a variety of information related with the tissue's physiology and operation.

In this work, preliminary and preview measurements are presented with the use of the spectroscopic method of diffuse reflectance. Those measurements were done, in order to study the potentialities and the capabilities of possible applications, with the existed infrastructure and laboratory equipment. These applications include the identification of skin tissue, the objective definition of the skin color type, as well as the estimation of the ability to extract valuable information from the measured spectra, as a consequence to use the method of diffuse reflectance on probable verification and premature diagnosis of skin diseases, e.t.c.

**Keywords:** Reflectance spectroscopy, skin, epidermis, reflectance spectrum, melanin, hemoglobin