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ADVANCED FIBRE-OPTIC SPECTROMETRY TECHNIQUE FOR SKIN REFLECTANCE AND FLUORESCENCE DIAGNOSTICS

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Abstract: A portable fibre-optic spectrometry set for complex skin *in-vivo* diagnostics has been assembled and clinically tested. Healthy and pathologic skin areas were compared from the points of colour and spectral features. Skin surface and diffuse reflectance, as well as the blue and green laser excited auto-fluorescence spectra in the visible and near-infrared ranges were studied.

Introduction: Skin cancer and other pathologies are diseases with tendency to grow in many, especially Nordic, countries. Dermatologists are looking for fast and non-invasive methods and portable devices for early skin diagnostics both in stationary and field conditions. Fibre-optic skin spectrometry may have good potential in this respect. Data on skin colour, reflectance and fluorescence can be obtained this way, with further analysis of the specific parameters and/or markers of the diseases. This work was aimed at development of methodology for complex studies of skin pathologies using these three optical techniques simultaneously.

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Tip#2—Full Width/Half Max—This feature can be enabled under the Settings Menu under Options. Once enabled a user can either Alt-Left click on a specific wavelength to see FWHM or see a table of all FWHM values for all peaks.



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