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(54) **Title**: ANALYTICAL METHOD FOR COMMON AND SPECIFIC CHARACTERIZATION OF SKIN CARCINOGENESIS BY FTIR MICROSPECTROSCOPY

(57) **Abstract**: The invention presents methods of using Fourier transform infrared (FTIR) microspectroscopy for common and specific characterization of carcinogenesis in human skin tumors. The invention provides the user with the method to analyse intra- and inter-molecular interactions for nucleic acids and proteins expressed in infrared (IR) spectra of human skin epidermal cancers towards understanding the molecular, cellular and tissue changes that occur during skin carcinogenesis. More particularly, presented analytical method has the advantage to simultaneously observe DNA-RNA, DNA-DNA, DNA-protein and protein-protein interactions by means of their expressed interacting activity levels within one type of tumour and between different types of tumours, both commonly and specifically, with further indication of the grade of activity in benign, premalignant and malignant skin tissue cells.