

Title (en)

NON-INVASIVE SCREENING OF SKIN DISEASES BY VISIBLE/NEAR-INFRARED SPECTROSCOPY

Title (de)

NICHTINVASIVES SCREENING VON HAUTERKRANKUNGEN MITTELS SPEKTROSKOPIE IM SICHTBAREM / NAHEM INFRAROT

Title (fr)

DIAGNOSTIC NON INVASIF DE MALADIES DE LA PEAU PAR SPECTROSCOPIE DANS LE VISIBLE/L'INFRAROUGE PROCHE

Publication

EP 1237479 A2 20020911 (EN)

Application

EP 00967472 A 20001005

Priority

- CA 0001187 W 20001005
- US 15785799 P 19991006

Abstract (en)

[origin: WO0124699A2] A non-invasive tool for skin disease diagnosis would be a useful clinical adjunct. The purpose of this study was to determine whether visible/near-infrared spectroscopy can be used to non-invasively characterize skin diseases. In-vivo visible- and near-infrared spectra (400-2500 nm) of skin neoplasms (actinic keratoses, basal cell carcinomata, banal common acquired melanocytic nevi, dysplastic melanocytic nevi, actinic lentigines and seborrheic keratoses) were collected by placing a fiber optic probe on the skin. Paired t-tests, repeated measures analysis of variance and linear discriminant analysis were used to determine whether significant spectral differences existed and whether spectra could be classified according to lesion type. Paired t-tests showed significant differences ($p < 0.05$) between normal skin and skin lesions in several areas of the visible/near-infrared spectrum. In addition, significant differences were found between the lesion groups by analysis of variance. Linear discriminant analysis classified spectra from benign lesions compared to pre-malignant or malignant lesions with high accuracy. Visible/near-infrared spectroscopy is a promising non-invasive technique for the screening of skin diseases.

IPC 1-7

A61B 5/103

IPC 8 full level

A61B 5/103 (2006.01)

CPC (source: EP)

A61B 5/0075 (2013.01); **A61B 5/444** (2013.01); **A61B 5/445** (2013.01); **A61B 5/7264** (2013.01)

Citation (search report)

See references of WO 0124699A2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0124699 A2 20010412; **WO 0124699 A8 20011004**; AU 7766200 A 20010510; AU 782431 B2 20050728; CA 2396883 A1 20010412; CA 2396883 C 20110412; EP 1237479 A2 20020911

DOCDB simple family (application)

CA 0001187 W 20001005; AU 7766200 A 20001005; CA 2396883 A 20001005; EP 00967472 A 20001005