Title (en)
PROCESSING OF KERATOSCOPIC IMAGES USING LOCAL SPATIAL PHASE

Title (de)
VERARBEITUNG VON KERATOSKOPISCHEN BILDERN UNTER VERWENDUNG LOKALER RÄUMLICHER INTERFERENZ-MUSTER

Title (fr)
TRAITEMENT D'IMAGES KERATOSCOPIQUES PAR PHASE SPATIALE LOCALE

Publication
EP 0722285 A4 19981104 (EN)

Application
EP 95922992 A 19950607

Priority
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- US 28712694 A 19940808

Abstract (en)
[origin: WO9604839A1] Quantitative measurement of corneal surface topography is obtained by processing a two-dimensional image of the surface (6) which reflects a quasi-periodic illuminated pattern, such as a series of concentric rings (13), from a Placido disk source. The local spatial phases exhibited by the image of the illuminated pattern when reflected from the corneal surface and when reflected from standard specular surfaces are obtained by processing the images (42). The distances at which predetermined local spatial phases are observed in the image from the cornea are compared (42) with the distances at which these same phases are observed in the images of the standard surfaces. The distances are also compared (42) with certain corresponding distances on the source and converted to reveal the dioptric powers of refraction of the corneal surface without the need for parametric interpolation. During processing, any mislocation of the apex of the corneal surface along the optical axis is compensated for.

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A61B 3/107; A61B 3/15

IPC 8 full level
A61B 3/10 (2006.01); **A61B 3/107** (2006.01); **G01B 11/255** (2006.01)

CPC (source: EP)
A61B 3/107 (2013.01); **G01B 11/255** (2013.01)

Citation (search report)
- [A] JP H0630900 A 19940208 - SHIMIZU KIMIYA, et al & US 5357294 A 19941018 - SHIMIZU KIMIYA [JP], et al
- [A] WO 9201417 A1 19920206 - HORWITZ LARRY S [US]
- [A] WO 8802847 A2 19880421 - EASTMAN KODAK CO [US]
- See references of WO 9604839A1

Designated contracting state (EPC)
CH DE FR GB IT LI NL

DOCDB simple family (publication)
WO 9604839 A1 19960222; CA 2172284 A1 19960222; CA 2172284 C 19990928; EP 0722285 A1 19960724; EP 0722285 A4 19981104; JP 3010072 B2 20000214; JP H08510949 A 19961119

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