

Title (en)  
SHARPNESS METRIC FOR VISION QUALITY

Title (de)  
SCHÄRFEMETRIK FÜR SEHQUALITÄT

Title (fr)  
PROCEDE DE MESURE DE L'ACUITE VISUELLE POUR LA QUALITE DE VISION

Publication  
**EP 1501404 A4 20090304 (EN)**

Application  
**EP 03721996 A 20030502**

Priority  
• US 0313716 W 20030502  
• US 37721902 P 20020503

Abstract (en)  
[origin: WO03092485A1] A vision metric, called the sharpness metric, indicates the subjective sharpness of a patient's vision by taking into account both the wavefront aberration and the retinal response to the image. A retinal image quality function such as the point spread function is convolved by a neural quality function, and the maximum of the convolution over the retinal plane provides the sharpness metric. The sharpness metric can be used to control eye surgery or the fabrication of a lens.

IPC 1-7  
**A61B 3/10**

IPC 8 full level  
**A61B 3/103** (2006.01)

CPC (source: EP)  
**A61B 3/0025** (2013.01)

Citation (search report)  
• [A] WO 0182791 A1 20011108 - UNIV ROCHESTER [US]  
• [PX] WILLIAMS, DAVID: "Subjective image quality metrics from the wave aberration", 4TH INTERNATIONAL CONGRESS ON WAVEFRONT SENSING AND ABERRATION FREE REFRACTIVE CORRECTION, SAN FRANCISCO, FEB 14-16, 2003, XP002511608, Retrieved from the Internet <URL:http://voi.opt.uh.edu/VOI/WavefrontCongress/2003/presentations/Sunday%2003\_16\_03/69%20Williams%20metrics.pdf>  
• [PX] APPEL GATE R A ET AL: "Visual acuity as a function of Zernike mode and level of root mean square error", OPTOMETRY AND VISION SCIENCE LIPPINCOTT WILLIAMS & WILKINS USA, vol. 80, no. 2, February 2003 (2003-02-01), pages 97 - 105, XP002511609, ISSN: 1040-5488  
• See references of WO 03092485A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 03092485 A1 20031113**; AU 2003225276 A1 20031117; EP 1501404 A1 20050202; EP 1501404 A4 20090304

DOCDB simple family (application)  
**US 0313716 W 20030502**; AU 2003225276 A 20030502; EP 03721996 A 20030502