

Logistik für individuelle IOL

Paul-Rolf Preußner, Univ.-Augenlinik Mainz

Welche optischen Fehler

sind mit IOL

individuell korrigierbar?

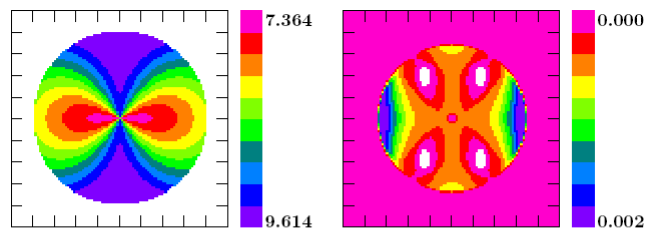
Theoretisch vollständig korrigierbar:

- Defokus
- sphärische Aberration

⇒ nur rotationssymmetrische Fehler bei exakter Zentrierung

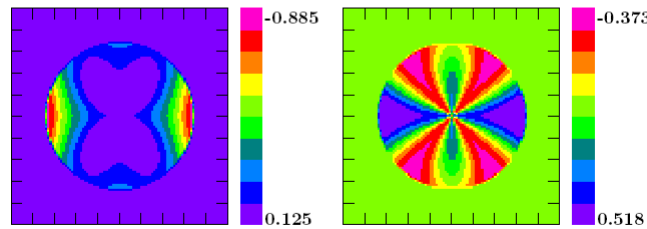
Astigmatismus?

Fehler höherer Ordnung?



corneal radius [mm]

wavefront error [mm]
RMS=0.00049mm



meridional refraction [D]
RMS=0.185D

azimuthal refraction [D]
RMS=0.288D

R= 9.281	E= 10.49	C=1.3700	H= 0.500
e= 0.501	e= 1.600	K=1.3360	V= 4.544
P= 19.68	Z= 31.46	B=1.4910	D= 0.627
Q= 6.000		I=1.3360	G=21.250

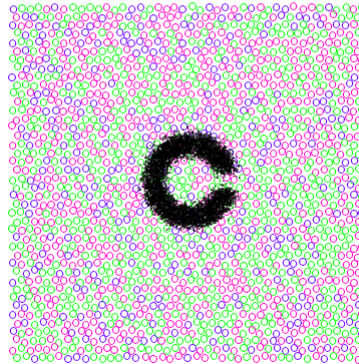
Vis	Pup	Dec	Sph	Cyl	Ax
1.00	4.00	0.00	0.00	0.00	0

customized IOL

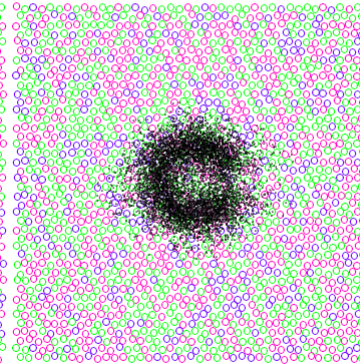
R= 8.269	E= 10.50	C=1.3700	H= 0.500
e= 0.504	e= 1.600	K=1.3360	V= 4.544
P= 19.65	Z= 31.50	B=1.4910	D= 0.582
Q= 6.000		I=1.3360	G=21.295

Vis	Pup	Dec	Sph	Cyl	Ax
1.00	4.00	0.00	0.00	0.00	0

customized IOL



no corneal astigmatism



10D corneal astigmatism

Designparameter:

- Defokus (sphär. Brechkraft)
- Astigmatismus
- Asphärizität
- optional Nahzusatz wählbarer Stärke

mögliche Genauigkeitsverluste:

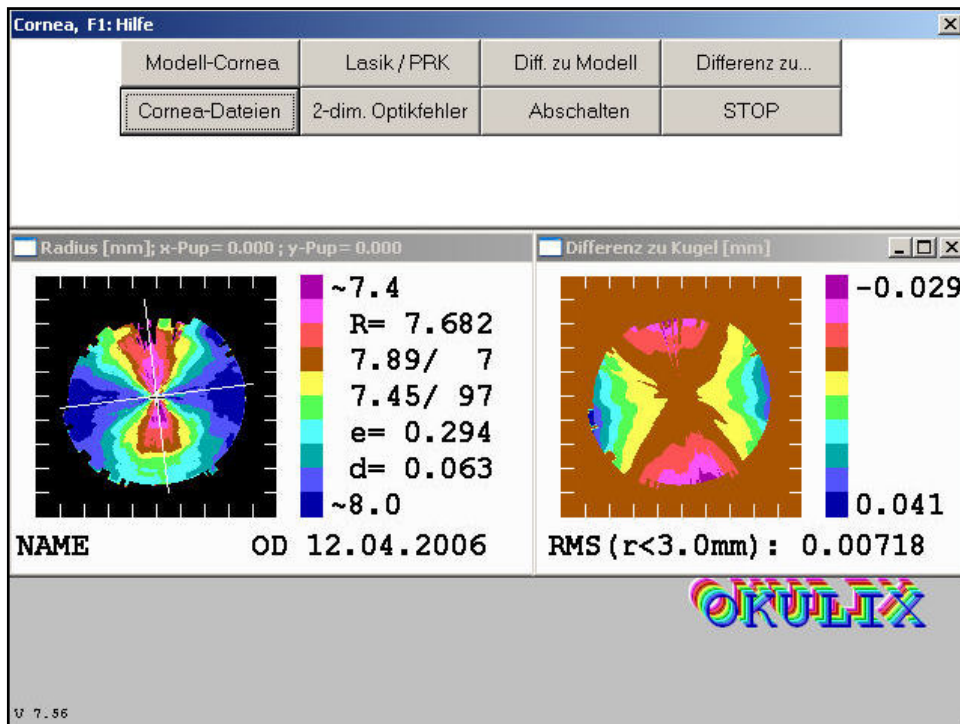
- Vermessung des Auges
- IOL-Herstellung
- Operation / Heilung

mögliche Logistikfehler:

- Vertauschung von Datensätzen / Patienten
- Datenverluste


Einzelschritte

- Messungen: Achsenlänge, Topographie, [Vordersegment]
- Berechnung der IOL
- Datenübertragung zum Hersteller
- Fertigung
- Fertigungskontrolle, ggfls. Nachbesserung, Sterilisation
- Versand und Empfangskontrolle
- Implantation

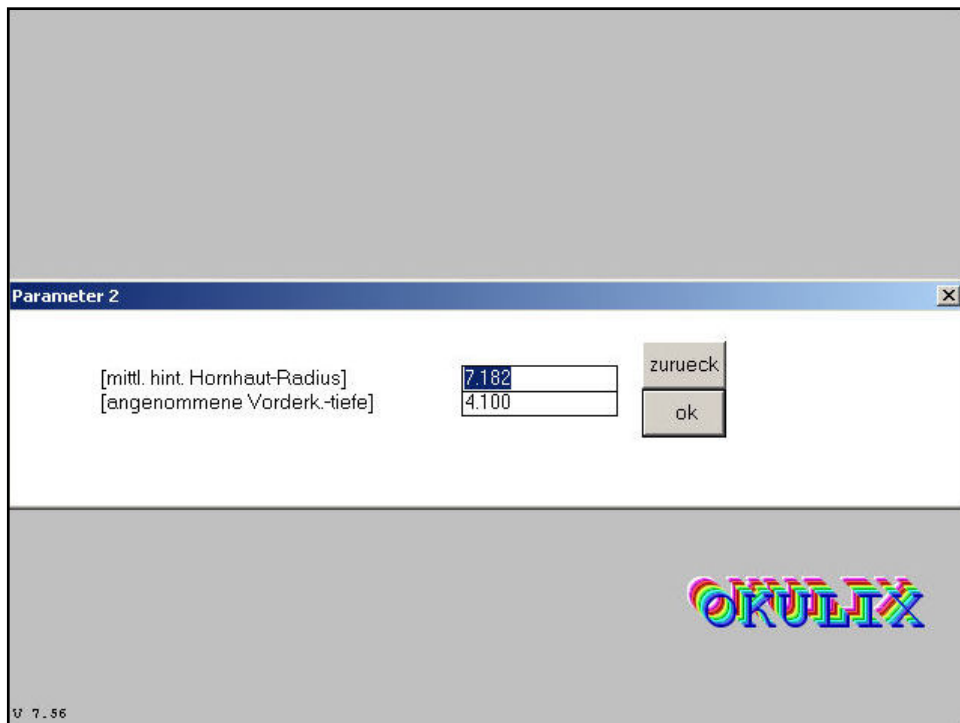
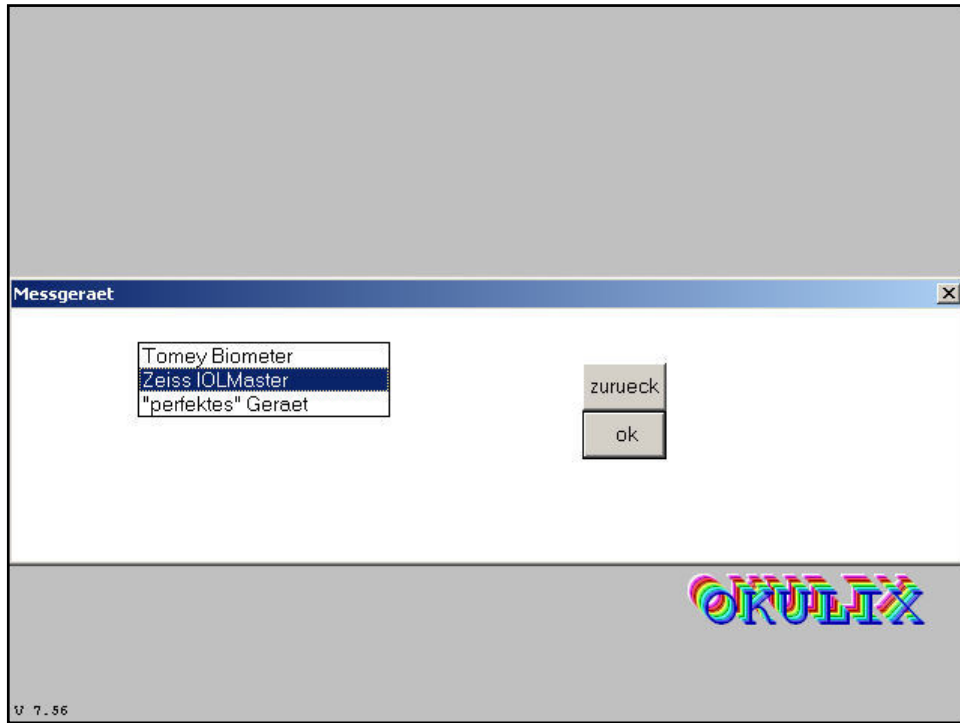


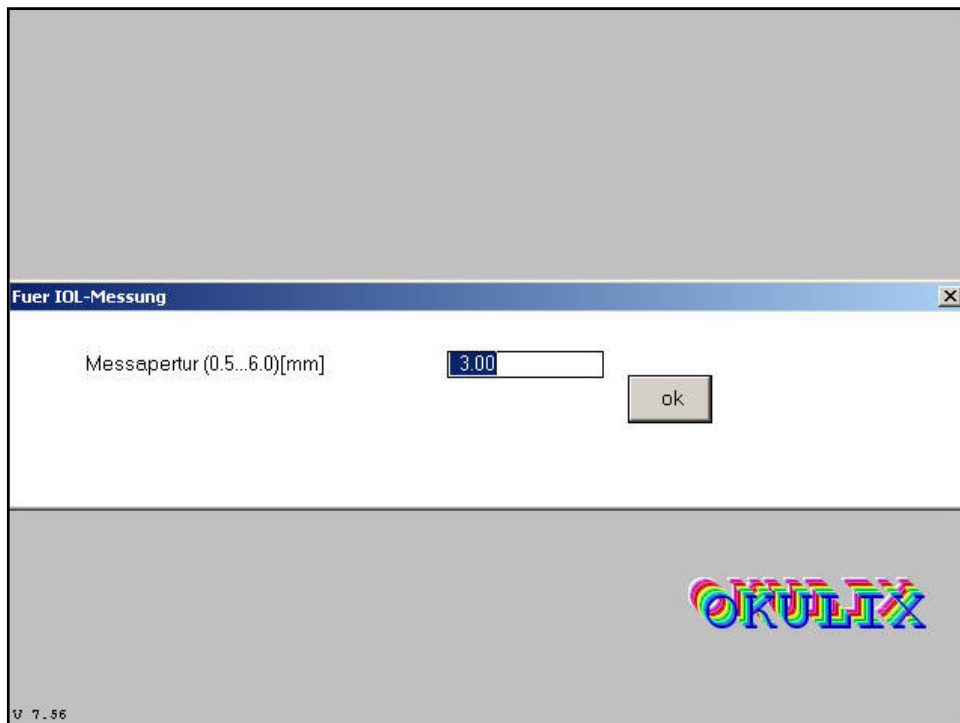
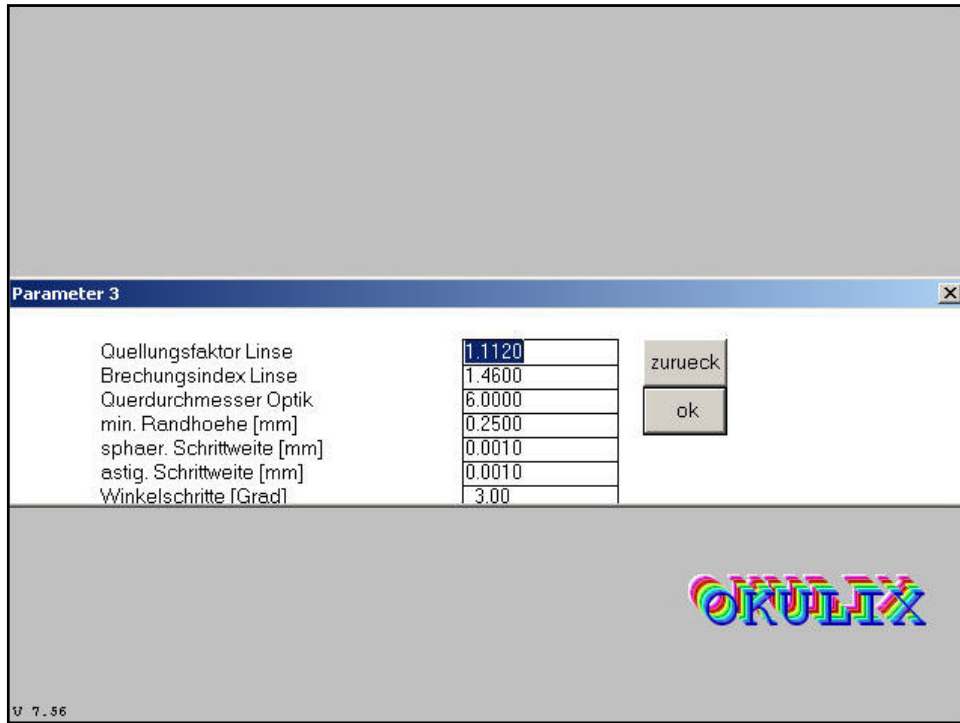
Parameter 1

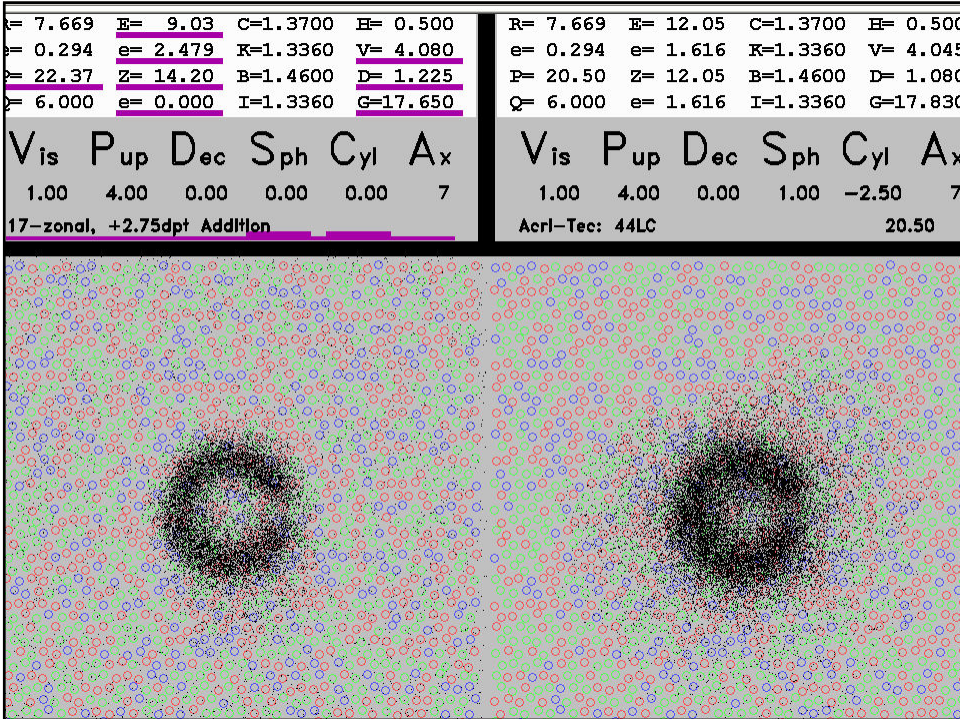
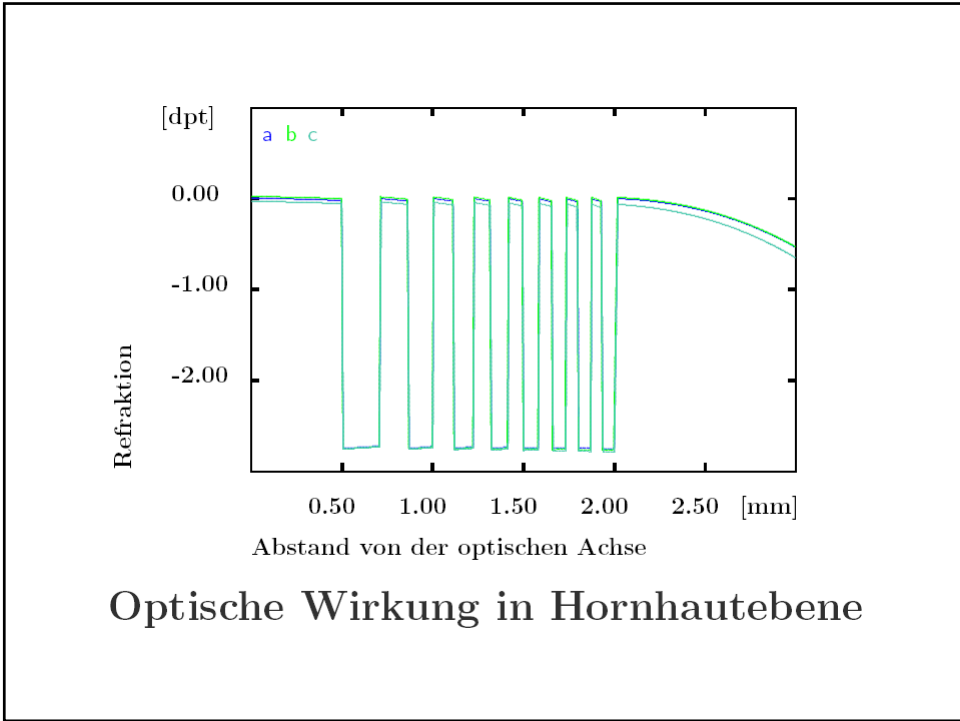
1. Hornhaut-Radius	7.888	zurueck
2. Hornhaut-Radius	7.450	
Laenge der Achse	23.600	ok
Zielrefraktion	-0.00	
Nahaddition (0-4)	2.75	<input checked="" type="radio"/> anterior bifo posterior <input type="radio"/> <input type="radio"/> R-Format
Zahl der Zonen (1-99, ungerade)	17	
Radienverhaeltnis hinten/vorne	2.00	

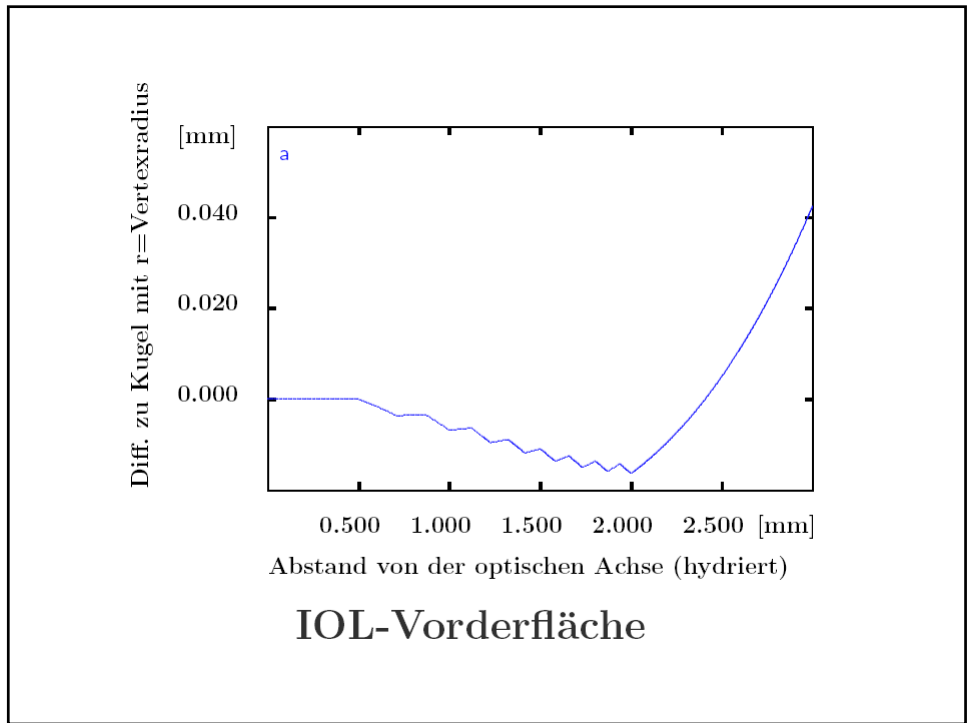
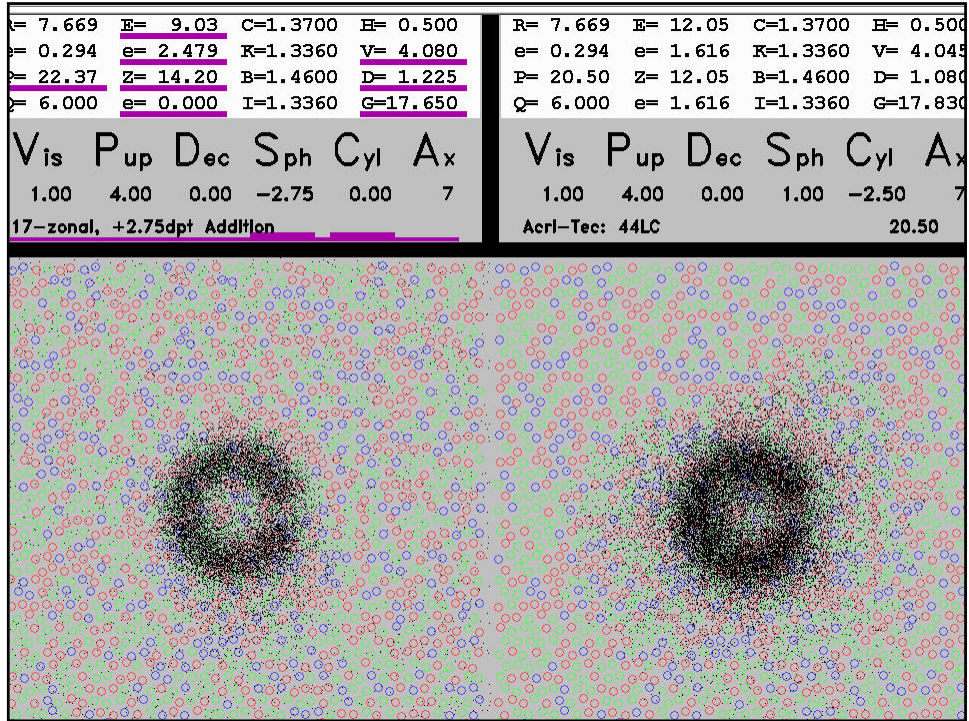


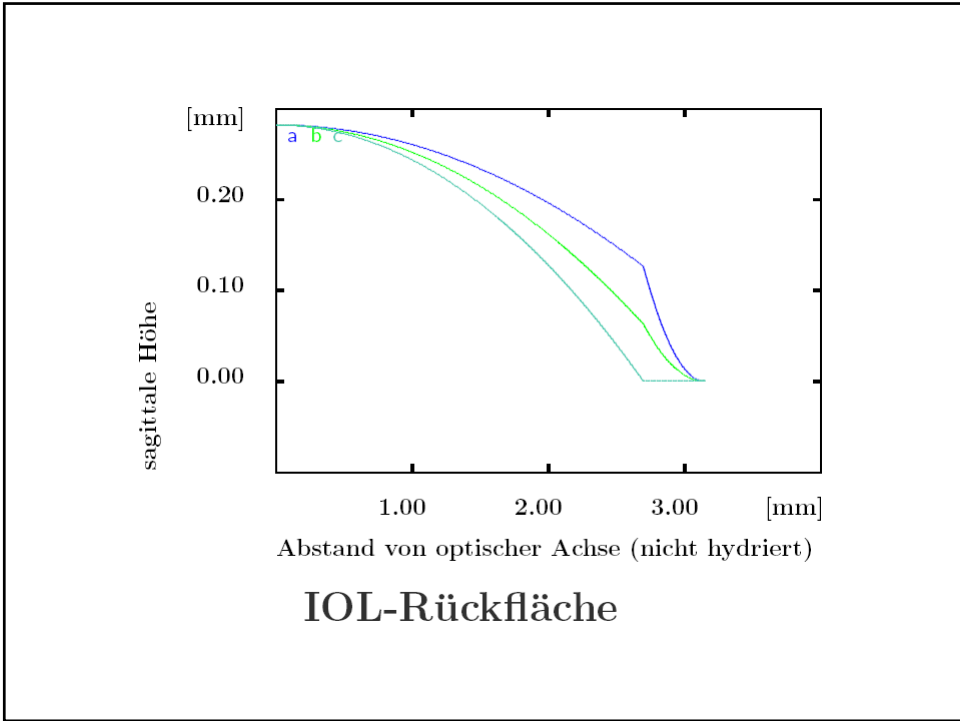
V 7.56











individuelle Linse ✕

Zielrefraktion 0.00dpt Zusatz (Hornhautebene) 2.75dpt =>


Radien vorne: 9.29mm/ 9.29mm, hinten: 14.51mm/ 25.88mm

Brechkraft 21.81/-3.71dpt ISO: 19.95SE 3.71CYL

Fuer 3.00mm Apertur 0.41dpt zu Messwert addieren

PRINT

EXAMPLE NAME 05.05.1959 OD 12.04.2006, Code: 6VHVBGAM

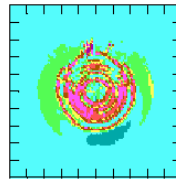
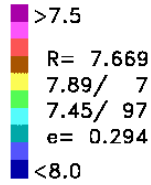
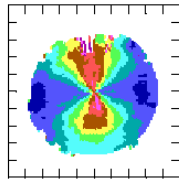


7.56

Patient: EXAMPLE NAME 05.05.1959 OD 12.04.2006

Topom. Radius [mm]

Merid. Refraktion [dpt]



R1=7.89mm, R2=7.45mm, ACD=4.10mm, Achse=23.60mm

Zielref.: 0.00dpt, Zusatz (Cornea): 2.75dpt

IOL ant.[mm]: 9.29/ 9.29, post.: 14.51/ 25.88

Brechkraft: 21.81dpt, zyl.: -3.71dpt, ISO:19.95SE 3.71CYL

EXAMPLE NAME 05.05.1959 OD 12.04.2006, Code: 6VHVBGAM

PRP, Univ.-Augenklinik Mainz


individuelle IOL Acri.Tec / OKULIX 14/12/07

Fuer IOL-Messung

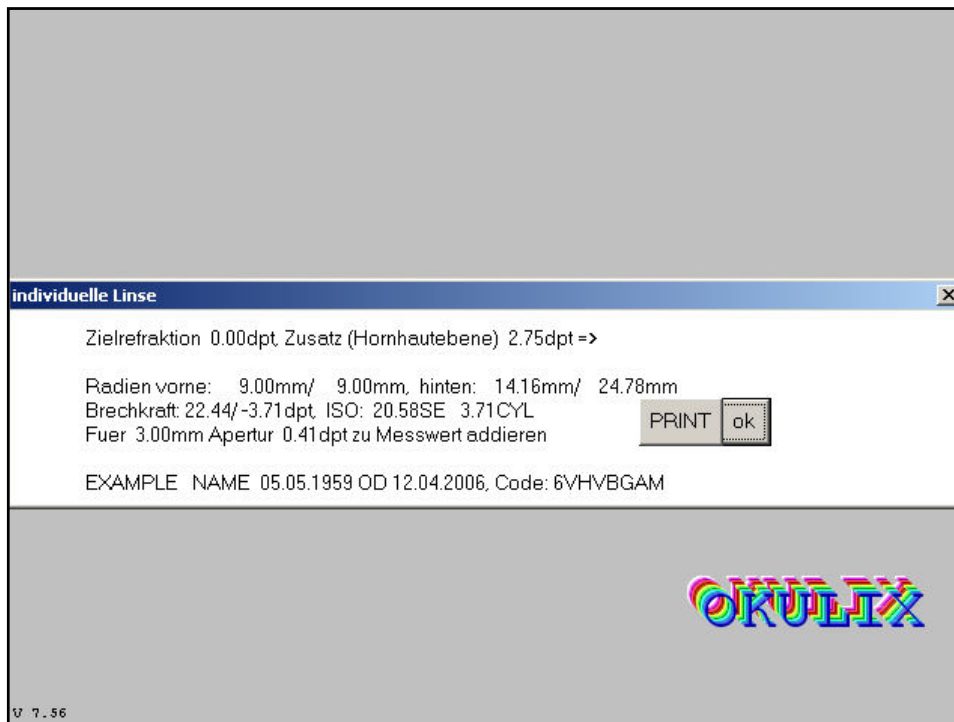
Messapertur (0.5...6.0)[mm]

Messwert-Sollwert (-2...+2)[dpt]

ok



7.56



R1=7.89mm, R2=7.45mm, ACD=4.10mm, Achse=23.60mm
Zielref.: 0.00dpt, Zusatz (Cornea): 2.75dpt
IOL ant.[mm]: 9.00/ 9.00, post.: 14.16/ 24.78

Fuer 3.00mm Apertur addiere 0.41dpt zu Messwert
EXAMPLE NAME 05.05.1959 OD 12.04.2006, Code: 6VHVBGAM
PRP, Univ.-Augenlinik Mainz
individuelle IOL Acri.Tec / OKULIX 14/12/07

