

Comparison of algorithms to suppress artifacts from the natural lens in fluorescence lifetime imaging ophthalmoscopy (FLIO): supplement

D. SCHWEITZER,¹ J. HAUEISEN,² J. L. BRAUER,¹ M. HAMMER,¹  AND M. KLEMM^{2,*} 

¹Department of Ophthalmology, University Hospital Jena, Am Klinikum 1, 07747 Jena, Germany

²Institute of Biomedical Engineering and Informatics, POB 100565, 98694 Ilmenau, Germany

*matthias.klemm@tu-ilmenau.de

This supplement published with The Optical Society on 15 September 2020 by The Authors under the terms of the [Creative Commons Attribution 4.0 License](#) in the format provided by the authors and unedited. Further distribution of this work must maintain attribution to the author(s) and the published article's title, journal citation, and DOI.

Supplement DOI: <https://doi.org/10.6084/m9.figshare.12781136>

Parent Article DOI: <https://doi.org/10.1364/BOE.400059>

Supplementary materials

Tables S1 and S2 list results of reference and models in addition to Fig. 4, 5, 6, 7.

Table S1. Additional results for reference and all models in SSC: figure of merit χ^2 according to Eq. 4, temporal shift exponential function by tc , fractional fluorescence estimated of the natural lens (exponential component 3 / shift exponential component or fluorescence signal of separately measured natural lens or combination of both; reference: not assumed as natural lens fluorescence, only for comparison)

Label	SSC			central			inner ring			outer ring		
	χ^2	tc (ps)	lens (%)	χ^2	tc (ps)	lens (%)	χ^2	tc (ps)	lens (%)	χ^2	tc (ps)	lens (%)
Reference	1.10	n/a	21.9	1.12	n/a	26.6	1.12	n/a	23.9			
M1	1.23	n/a	60.8	1.18	n/a	54.9	1.13	n/a	50.4			
M2	1.64	n/a	56.5	1.20	n/a	50.0	1.24	n/a	44.9			
M3	1.15	154	59.9	1.15	153	53.7	1.15	154	48.7			
M4	1.16	172	58.4	1.15	172	52.1	1.16	172	47.2			
M5	1.15	166	55.9	1.14	162	49.8	1.15	165	44.4			
M6	1.18	n/a	62.8	1.19	n/a	56.2	1.21	n/a	50.5			
M7	1.16	152	60.9	1.15	150	54.8	1.15	151	49.9			
M8	1.16	n/a	62.8	1.15	n/a	58.0	1.16	n/a	51.7			
M9	1.15	144	61.0	1.14	142	55.6	1.14	143	49.9			

Table S2. Additional results for reference and all models in LSC: figure of merit χ^2 according to Eq. 4, temporal shift exponential function by tc , fractional fluorescence estimated of the natural lens (exponential component 3 / shift exponential component or fluorescence signal of separately measured natural lens or combination of both; reference: not assumed as natural lens fluorescence, only for comparison)

Label	LSC			central			inner ring			outer ring		
	χ^2	tc (ps)	lens (%)	χ^2	tc (ps)	lens (%)	χ^2	tc (ps)	lens (%)	χ^2	tc (ps)	lens (%)
Reference	1.16	n/a	21.6	1.17	n/a	22.7	1.19	n/a	21.2			
M1	1.17	n/a	39.3	1.17	n/a	31.5	1.18	n/a	27.8			
M2	1.24	n/a	37.3	1.27	n/a	29.2	1.34	n/a	25.4			
M3	1.19	145	38.8	1.26	128	30.0	1.28	124	25.6			
M4	1.21	172	36.7	1.30	172	26.1	1.39	172	21.1			
M5	1.16	164	33.9	1.15	153	22.9	1.17	151	17.7			
M6	1.20	n/a	40.9	1.23	n/a	31.6	1.22	n/a	27.4			
M7	1.17	119	43.9	1.20	112	34.5	1.25	112	29.8			
M8	1.20	n/a	40.9	1.20	n/a	31.3	1.22	n/a	26.5			
M9	1.15	112	45.8	1.25	106	36.1	1.30	107	30.4			