Special Issue

Optics of the Eye: From Visual Optics to Clinical Application

Message from the Guest Editor

Accommodation is the ability of the eye to actively change its dioptric power to focus on objects at a wide range of distances. The focusing mechanism involves an increase in the total optical power of the eye to change from a distant to a near viewing distance and vice versa. This is primarily achieved through a change in the shape and thickness of the crystalline lens varying its optical refractive power. The existence of accommodative dysfunctions leads to symptoms and difficulties in performing near-vision tasks however, there are no studies relating these disabilities to the optical quality of the eye changes with accommodation. In this Special Issue we expect to cover several topics regarding ocular accommodation:

- Relationship between ocular accommodation and wavefront aberrations;
- Changes in morphological and optical properties of the crystalline lens during accommodation;
- New optical instrumentation or techniques to evaluate the ocular accommodation;
- Impact of accommodative dysfunctions in the ocular optical quality;
- Application of the knowledge;
- New optical approaches to the presbyopia correction.

Guest Editor

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Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Photonics* (ISSN 2304-6732). *Photonics* is an online open access journal covering both the fundamental and applications of optics and photonics. *Photonics* strives to provide an avenue to allow authors to disseminate their scientific findings—both theoretical/ simulations and experimental works—in highly accessible peer-reviewed journal publications. The manuscript in *Photonics* will be handled with quick turnaround production processing time. We welcome authors to submit their manuscripts for publications in *Photonics*. Our goal in *Photonics* is to enable fast dissemination of high impact works to the scientific community.

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