

ABSTRACT

Toric contact lenses employing a stabilization mechanism to minimize the effect of asymmetric eyelid bias in settled orientation of the toric contact lens, and related methods of design. The toric contact lens includes stabilization zones that are each disposed horizontal sides of the lens periphery of the contact lens between its central optic zone and the lens edge. To minimize the effect of asymmetric bias of an eyelid of a patient wearer on the alignment of the toric contact lens to the principal meridians of the eye, the portion of the contour lines in the stabilization zones that are configured to intersect with an upper eyelid margin in wear are oriented to a target upper eyelid margin shape of a target upper eyelid of an average patient wearer. In this manner, the stabilization zone of the toric contact lens is more desensitized to any asymmetric shape of the wearer's eyelid.