

A LENS HAVING AN OPTICALLY CONTROLLED PERIPHERAL PORTION AND A METHOD FOR DESIGNING AND MANUFACTURING THE LENS

ABSTRACT

A contact lens or phakic IOC lens is provided with a peripheral portion that has a power profile that provides optical control of peripheral vision images. Typically, the central portion of the lens is also provided with optical control. The power profile of the lens at the boundary of the central and peripheral portions meets certain boundary conditions that ensure that the lens provides a desired or selected vision correction. Because the peripheral portion of the lens provides optical control that defocuses the peripheral vision image relative to the retina, the lens can be used to prevent or inhibit growth of the eye, thereby preventing or inhibiting myopia or the effects of myopia.

Figure 3