

## ABSTRACT

### METHOD FOR DESIGNING CONTACT LENSES WITH SEMI-CUSTOMIZED BACK SURFACE

The present invention is directed to a method for designing a soft contact lens with semi-customized back surface including determining axial radius topography data for a plurality of eyes of a specific population; calculating an apical radius and a conic constant distribution from the axial radius data; determining apical radius and conic constant values for an individual subject; selecting a subset of base curves from a base curve library based on the individual subject's apical radius and conic constant values; and selecting a final base curve from the subset of base curves that fits the individual subject's needs based on one or more selection criteria.

Figure 7