

[54] **OPHTHALMIC LENSES HAVING PROGRESSIVELY VARIABLE REFRACTING POWER**

52-20271 6/1977 Japan .  
59-42285 10/1984 Japan .

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**OTHER PUBLICATIONS**

Optica Acta, International Journal of Optics, vol. 10, No. 3, pp. 223-227.

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[57] **ABSTRACT**

Ophthalmic lenses having progressively variable refracting power are designed to have good aberrational balance, a wide field of view, large clear vision areas, and minimal image distortion and shift. Aberration density is reduced in a progressively variable refracting power area in a side portion of the principal meridional curve from a lower position in a portion for distance vision correction, through an intermediate portion, to a portion for near vision correction. Optical cross-sectional and longitudinally sectional shapes of the refracting surfaces optimize aberration balance in the entire area of the refracting surfaces. In the side areas, an average refracting power on the lens surface and a value associated with the Gaussian curvature are used as parameters to define lens aberration quantitatively.

[30] **Foreign Application Priority Data**

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[58] Field of Search ..... **351/168-172**

[56] **References Cited**

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14 Claims, 9 Drawing Sheets

