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Bandhauer et al.

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(54) **OPHTHALMIC LENS WITH MULTIPLE PHASE PLATES**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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(58) **Field of Classification Search** 351/161, 351/168, 117, 172; 359/565, 571; 623/6.3, 623/6.31

See application file for complete search history.

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(57) **ABSTRACT**

An ophthalmic lens for providing a plurality of foci includes an optic having an anterior surface, a posterior surface, and an optical axis. The ophthalmic lens has a first region and a second region. The first region has a first refractive optical power and includes a first base curvature having a finite radius of curvature and a first phase plate having at least one diffraction order with a diffractive optical power. The first region is configured for forming a first focus and a second focus. The second region has a second refractive optical power and includes a second base curvature having a finite second radius of curvature and a second phase plate having at least one diffraction order with a diffractive optical power. The second region is configured for forming a third focus that is between the first focus and the second focus. The ophthalmic lens may be configured so the first focus provides distant vision, the second focus provides near vision, and the third focus provides intermediate vision.

13 Claims, 9 Drawing Sheets

