

(12) **United States Patent**  
**Haddock et al.**

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(54) **MULTIFOCAL LENS WITH A DIFFRACTIVE OPTICAL POWER REGION**

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CPC ..... **G02C 7/06** (2013.01); **G02B 5/1895** (2013.01); **G02C 7/061** (2013.01); **G02C 7/083** (2013.01); **G02C 2202/20** (2013.01)

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See application file for complete search history.

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(57) **ABSTRACT**

A lens system is presented having a diffractive optical power region. The diffractive optical power region has a plurality of concentric surface relief diffractive structures. A greater portion of light incident on a diffractive structure near the center point contributes to the optical power than light incident on a diffractive structure peripherally spaced therefrom.

**34 Claims, 33 Drawing Sheets**

