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**Rabinovich et al.**

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(54) **METHODS FOR IMPROVING PERFORMANCE OF HOLOGRAPHIC GLASSES**

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*G03H 1/0248* (2013.01); *G03H 2001/0268*  
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(58) **Field of Classification Search**  
None

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See application file for complete search history.

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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.

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This patent is subject to a terminal disclaimer.

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Borgman, V.A., et al., "Photothermal refractive effect in silicate glasses," *Sov. Phys. Dokl.*, Nov. 1989, 1011-1013.

(65) **Prior Publication Data**

(Continued)

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**Related U.S. Application Data**

*Primary Examiner* — Martin Angebrannt

(63) Continuation of application No. 13/888,452, filed on May 7, 2013, now Pat. No. 9,120,696, which is a continuation of application No. 12/111,090, filed on Apr. 28, 2008, now Pat. No. 8,455,157.

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(57) **ABSTRACT**

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The improvement of the performance of holographic glasses with recorded holograms as measured by a figure of merit of the holographic glasses is disclosed. The improvement in the figure of merit of the holographic glasses is obtained at least in part with the addition of arsenic in the formation of the holographic glasses. The presence of arsenic increases the figure of merit as measured at a wavelength of interest of a holographic glass with a recorded hologram as compared to a holographic glass with a recorded hologram that does not contain arsenic.

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**6 Claims, 8 Drawing Sheets**

