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CORNING INCORPORATED			WIESE, NOAH S	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DANA CRAIG BOOKBINDER,
RICHARD MICHAEL FIACCO, KENNETH EDWARD HRDINA,
LISA ANNE MOORE, and SUSAN LEE SCHIEFELBEIN

Appeal 2012-000957
Application 12/420,443
Technology Center 1700

Before BRADLEY R. GARRIS, JEFFREY T. SMITH, and
JAMES C. HOUSEL, *Administrative Patent Judges*.

GARRIS, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134, Appellants appeal from the Examiner's rejections of claims 31-34 and 36-41 under 35 U.S.C. § 102(b) as anticipated by, or alternatively under 35 U.S.C. § 103(a) as unpatentable over, Ohashi et al. (US 6,143,676, patented Nov. 7, 2000). We have jurisdiction under 35 U.S.C. § 6.

We AFFIRM.

Appellants claim a synthetic silica glass optical material having a H₂ concentration of greater than 1.0×10^{17} molecules/cm³ and less than about

5.0×10^{17} molecules/cm³ and exhibiting a laser induced wavefront distortion of between -1.0 and 1.0 nm/cm when measured under certain conditions (claim 31).

Representative claim 31, the sole independent claim on appeal, reads as follows:

31. A synthetic silica glass optical material for use at wavelengths of less than 250 nm, the synthetic silica glass optical material consisting essentially of synthetic silica glass, H₂, and OH, the synthetic silica glass material having a H₂ concentration of greater than 1.0×10^{17} molecules/cm³ and less than about 5.0×10^{17} molecules/cm³ and exhibiting a laser induced wavefront distortion, measured at 633 nm, of between -1.0 and 1.0 nm/cm when subjected to 10 billion pulses of a laser operating at about 193 nm and at a fluence of approximately $70 \mu\text{J}/\text{cm}^2$.

We will sustain the above rejections for the reasons well stated by the Examiner in the Answer. The following comments are added for emphasis.

The Examiner finds that the synthetic silica glass optical material disclosed by Ohashi and defined by claim 31 are compositionally identical and accordingly that the Ohashi material would inherently possess the laser induced wavefront distortion values of the claim 31 material (Ans. 4-5).

In an attempt to show otherwise, Appellants argue that Ohashi's optical material corresponds to the optical material of Specification Example 11 which does not possess their claimed distortion values (Br. 4-6).

However, we agree with the Examiner that these optical materials do not correspond to one another because the Example 11 material has a hydrogen concentration (i.e., 0.5×10^{17} molecules/cm³; *see* Spec. Table V at 18-19) substantially below the lowest value (i.e., 1×10^{17} molecules/cm³) taught by Ohashi (*see* Abst.) and defined by claim 31 (Ans. 7). As

Appeal 2012-000957
Application 12/420,443

Appellants concede, those skilled in this art know that laser induced damage is minimized by an amount of hydrogen in synthetic fused silica optical material (Spec. para. [0038]). For this reason and because Ohashi's material contains at least twice the hydrogen concentration of the Example 11 material, those skilled in this art would not expect these materials to exhibit the same or similar laser induced wavefront distortions.

We sustain, therefore, the § 102 and § 103 rejections of all appealed claims based on Ohashi.

The decision of the Examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

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