

Exhibit 16

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

DEMARAY LLC,

Plaintiff,

v.

INTEL CORPORATION,

Defendant.

Case No. 6:20-CV-00634-ADA

JURY TRIAL DEMANDED

**DEFENDANT INTEL CORPORATION'S
ANSWER AND AFFIRMATIVE DEFENSES**

Defendant Intel Corporation (“Intel”) herein answers the Complaint filed by Plaintiff Demaray LLC (“Demaray”) and states its affirmative defenses. Intel denies all allegations of the Complaint not explicitly admitted below.¹

ANSWER TO COMPLAINT

THE PARTIES

1. Intel admits that Richard E. Demaray is listed as a named inventor on the face of U.S. Patent Nos. 7,544,276 (“the ’276 patent”) and 7,381,657 (“the ’657 patent”) (collectively, the “Patents-in-Suit”). Intel is without knowledge or information sufficient to form a belief as to the truth of the allegations of this paragraph, and therefore denies them.

2. Intel is without knowledge or information sufficient to form a belief as to the truth of the allegations of this paragraph, and therefore denies them.

¹ Any statements and admissions included herein reflect Intel’s present understanding of the scope of the corresponding allegations and of terms used therein and/or in U.S. Patent Nos. 7,544,276 and 7,381,657 as those terms may be understood generally and presently understood by Intel.

3. Intel denies that it uses Demaray's patented technology. Intel is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations of this paragraph, and therefore denies them.

4. Intel is without knowledge or information sufficient to form a belief as to the truth of the allegations of this paragraph, and therefore denies them.

5. Intel admits that Demaray's Complaint purports to attach uncertified copies of the '276 patent and '657 patent as Exhibits 1 and 2, respectively. Intel is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations of this paragraph, and therefore denies them.

6. Intel admits that it is a corporation duly organized and existing under the laws of the State of Delaware, and has a place of business at 1300 South Mopac Expressway, Austin, Texas 78746. To the extent this paragraph recites a legal conclusion, no response is necessary. If a response is required, Intel denies this conclusion.

JURISDICTION AND VENUE

7. Intel admits that Demaray's Complaint purports to set forth an action arising under the patent laws of the United States, 35 U.S.C. § 1 *et seq.* Intel denies that there are factual or legal bases for the claims listed in the Complaint. Intel admits that this Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

8. For the limited purpose of this action only, Intel admits that it is subject to personal jurisdiction in the Western District of Texas.

9. For the limited purpose of this action only, Intel admits that it is subject to personal jurisdiction in the Western District of Texas, but denies the other allegations recited in this paragraph.

10. To the extent this paragraph recites a legal conclusion, no answer is required. To the extent that an answer is required, Intel denies that it makes, uses, sells, and/or offers to sell products or processes infringing the Patents-in-Suit and denies that the Western District of Texas is the most convenient venue to litigate this action. Intel admits that it has transacted and is continuing to transact business in the United States, including in the Western District of Texas.

TECHNOLOGY BACKGROUND

11. Intel admits that semiconductor devices are generally manufactured using a series of process steps applied to a substrate, but denies the other allegations in this paragraph.

12. Intel admits that magnetron sputtering is one of many physical vapor deposition (“PVD”) techniques and admits that magnetron sputtering can be carried out in a reactor with power being applied to a target. Intel is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations of this paragraph, and therefore denies them.

13. Intel admits that the ’276 patent states:

Other approaches to providing a uniform condition of sputter erosion rely on creating a large uniform magnetic field or a scanning magnetic field that produces a time-averaged, uniform magnetic field. For example, rotating magnets or electromagnets can be utilized to provide wide areas of substantially uniform target erosion. For magnetically enhanced sputter deposition, a scanning magnet magnetron source can be used to provide a uniform, wide area condition of target erosion.

As illustrated in FIG. 1A, apparatus 10 can include a scanning magnet magnetron source 20 positioned above target 12. An embodiment of a scanning magnetron source used for dc sputtering of metallic films is described in U.S. Pat. No. 5,855,744 to Halsey, et. al., (hereafter ’744), which is incorporated herein by reference in its entirety. The ’744 patent demonstrates the improvement in thickness uniformity that is achieved by reducing local target erosion due to magnetic effects in the sputtering of a wide area rectangular target. As described in the ’744 patent, by reducing the magnetic field intensity at these positions, the local target erosion was decreased and the resulting film thickness nonuniformity was improved from 8%, to 4%, over a rectangular substrate of 400x500 mm.

'276 patent, 8:38-60. Intel admits that the '276 patent also states: "Target 12 functions as a cathode when power is applied to it and is equivalently termed a cathode. Application of power to target 12 creates a plasma 53. Substrate 16 is capacitively coupled to an electrode 17 through an insulator 54." '276 patent, 5:24-27. Intel is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations of this paragraph, and therefore denies them.

14. Intel admits that the '276 patent states:

In accordance with the present invention, a sputtering reactor apparatus for depositing oxide and oxynitride films is presented. Further, methods for depositing oxide and oxynitride films for optical waveguide devices are also presented. A sputtering reactor according to the present invention includes a pulsed DC power supply coupled through a filter to a target and a substrate electrode coupled to an RF power supply. A substrate mounted on the substrate electrode is therefore supplied with a bias from the RF power supply.

The target can be a metallic target made of a material to be deposited on the substrate. In some embodiments, the metallic target is formed from Al, Si and various rare-earth ions. A target with an erbium concentration, for example, can be utilized to deposit a film that can be formed into a waveguide optical amplifier.

A substrate can be any material and, in some embodiments, is a silicon wafer. In some embodiments, RF power can be supplied to the wafer. In some embodiments, the wafer and the electrode can be separated by an insulating glass.

In some embodiments, up to about 10 kW of pulsed DC power at a frequency of between about 40 kHz and 350 kHz and a reverse pulse time of up to about 5 μ s is supplied to the target. The wafer can be biased with up to about several hundred watts of RF power. The temperature of the substrate can be controlled to within about 10 $^{\circ}$ C. and can vary from about -50 $^{\circ}$ C. to several hundred degrees C. Process gasses can be fed into the reaction chamber of the reactor apparatus. In some embodiments, the process gasses can include combinations of Ar, N₂, O₂, C₂F₆, CO₂, CO and other process gasses.

'276 patent, 2:45-3:7. Intel admits that the '276 patent also states: "However, both RF and pulsed DC deposited films are not fully dense and most likely have columnar structures. These columnar structures are detrimental for optical wave guide applications due to the scattering loss

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