EXHIBIT B.05
U.S. Patent No. 7,604,716

References cited herein:

- U.S. Patent No. 7,604,716 ("'716 Patent")
- D.V. Mozgrin, *et al*, High-Current Low-Pressure Quasi-Stationary Discharge in a Magnetic Field: Experimental Research, Plasma Physics Reports, Vol. 21, No. 5, 1995 ("Mozgrin")
- U.S. Pat. No. 6,190,512 ("Lantsman")
- Dennis M. Manos & Daniel L. Flamm, Plasma Etching: An Introduction, Academic Press 1989 ("Manos")
- Milton Ohring, The Material Science of Thin Films, Academic Press, 1992 ("Ohring")
- Donald L. Smith, Thin-Film Deposition: Principles & Practice, McGraw Hill, 1995 ("Smith")

Claims 12 and 13	Mozgrin in view of Lantsman
1. An apparatus for generating a strongly-ionized plasma, the apparatus comprising:	Mozgrin discloses an apparatus for generating a strongly-ionized plasma. '716 Patent at claim 24 ("wherein the peak plasma density of the strongly-ionized plasma is greater than about 10^{12} cm^{-3}") Mozgrin at Fig 1 Mozgrin at 400, right col, ¶ 4 ("To study the high-current forms of the discharge, we used two types of devices: a planar magnetron and a system with specifically shaped hollow electrodes.") Mozgrin at 401, right col, ¶2 ("For pre-ionization … the initial plasma density in the 10^9 – 10^{11} cm^{-3} range.") Mozgrin at 409, left col, ¶ 4 ("The implementation of the high-current magnetron discharge (regime 2) in sputtering … plasma density (exceeding $2x10^{13}$ cm^{-3}).") Mozgrin at 409, left col, ¶5 ("The high-current diffuse discharge (regime 3) is useful for producing large-volume uniform dense plasmas $n_i \cong 1.5x10^{15} cm^{-3}$…").
a. an ionization source that generates a weakly-ionized plasma from a	Mozgrin discloses an ionization source that generates a weakly-ionized plasma from a feed gas contained in a chamber. '716 Patent at 5:14-15 ("The weakly-ionized plasma 232 is

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feed gas contained in a chamber,	also referred to as a pre-ionized plasma.”) ‘716 Patent at claim 23 (“wherein the peak plasma density of the weakly-ionized plasma is less than about 10^{12} cm^{-3}”) Mozgrin at Figs. 1, 2, 3, 6, 7 Mozgrin at 401, left col, ¶ 1 (“The [plasma] discharge had an annular shape and was adjacent to the cathode.”) Mozgrin at 401, left col, ¶ 4 (“[A]pplying a square voltage pulse to the discharge gap which was filled up with either neutral or pre-ionized gas.”) Mozgrin at 402, right col, ¶2 (“Figure 3 shows typical voltage and current oscillograms.… Part I in the voltage oscillogram represents the voltage of the stationary discharge (pre-ionization stage).”) Mozgrin at 401, right col, ¶2 (“[f]or pre-ionization, we used a stationary magnetron discharge; … provided the initial plasma density in the 10^9 – 10^{11} cm^{-3} range.”) Mozgrin at 400, right col, ¶ 3 (“We investigated the discharge regimes in various gas mixtures at 10^{-3} – 10 torr…”) Mozgrin at 402, ¶ spanning left and right cols (“We studied the high-current discharge in wide ranges of discharge current…and operating pressure…using various gases (Ar, N_2, SF_6, and H_2) or their mixtures of various composition…”)
the weakly-ionized plasma substantially eliminating the probability of developing an electrical breakdown condition in the chamber; and	Mozgrin discloses the weakly-ionized plasma substantially eliminating the probability of developing an electrical breakdown condition in the chamber. Mozgrin at 406, right col, ¶3 (“pre-ionization was not necessary; however, in this case, the probability of discharge transferring to arc mode increased.”). Mozgrin at Figs. 4 and 7. Mozgrin at 400, left col, ¶ 3 (“Some experiments on magnetron systems of various geometry showed that discharge regimes which

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	do not transit to arcs can be obtained even at high currents.") Mozgrin at 400, right col, ¶ 1 ("A further increase in the discharge currents caused the discharges to transit to the arc regimes…"). Mozgrin at 404, left col, ¶ 4 ("The parameters of the shaped-electrode discharge transit to regime 3, as well as the condition of its transit to arc regime 4, could be well determined for every given set of the discharge parameters."). Mozgrin at 403, left col, ¶ 2. ("Then, we studied regimes 2 and 3 separately to determine the boundary parameters of their occurrence, such as current, voltage…."). Mozgrin at 400, right col, ¶ 1 ("A further increase in the discharge currents caused the discharges to transit to the arc regimes…."). Mozgrin 404, left col, ¶ 4 ("If the current was raised above 1.8 kA or the pulse duration was increase to 2 – 10 ms, an instability development and discharge contraction was observed."). *Background:* Manos at 231 ("We shall … [include] information on unipolar arcs. These are a problem…") Manos at 237 ("When such an arc occurs, the metal object is melted at the arc spot. The metal is explosively released…. How does one prevent such an arc? There are several methods…")
b. a power supply that supplies power to the weakly-ionized plasma though an electrical pulse that is applied across the weakly-ionized plasma, the electrical pulse having at least one of a magnitude and a rise-time that is sufficient to transform the weakly-ionized plasma to a strongly-ionized plasma without developing an electrical breakdown condition in	Mozgrin discloses a power supply that supplies power to the weakly-ionized plasma though an electrical pulse that is applied across the weakly-ionized plasma, the electrical pulse having at least one of a magnitude and a rise-time that is sufficient to transform the weakly-ionized plasma to a strongly-ionized plasma without developing an electrical breakdown condition in the chamber. '716 Patent at claim 23 ("wherein the peak plasma density of the weakly-ionized plasma is less than about 10^{12} cm^{-3}") '716 Patent at claim 24 ("wherein the peak plasma density of the strongly-ionized plasma is greater than about 10^{12} cm^{-3}") Mozgrin at Fig. 1

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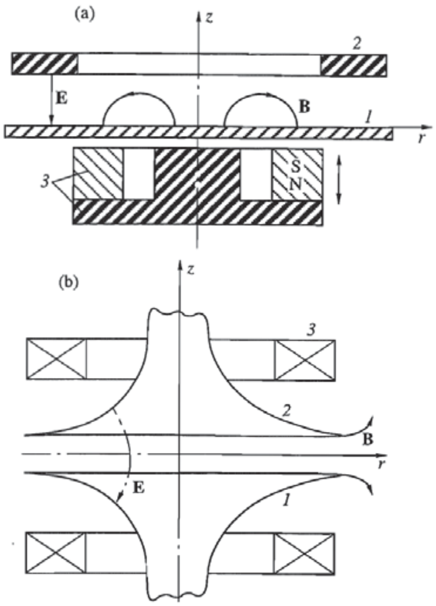
<table>
<tr><th>Claims 12 and 13</th><th>Mozgrin in view of Lantsman</th></tr>
<tr><td>the chamber.</td><td>


Fig. 1. Discharge device configurations: (a) planar magnetron; (b) shaped-electrode configuration. (*1*) Cathode; (*2*) anode; (*3*) magnetic system.

Mozgrin at Fig. 2

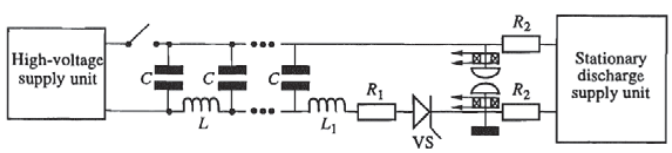


Fig. 2. Discharge supply unit.

Mozgrin at Fig. 3
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	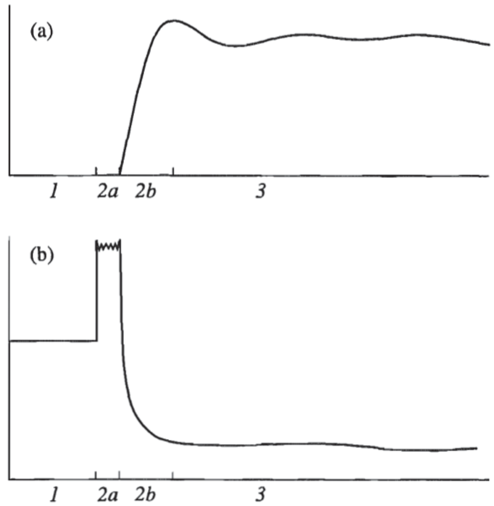 **Fig. 3.** Oscillograms of (a) current and (b) voltage of the quasi-stationary discharge (50 μs per div., 180 A per div., 180 V per div.). Mozgrin at 402, right col, ¶ 2 (“Part 1 in the voltage oscillogram represents the voltage of the stationary discharge (pre-ionization stage).”) Mozgrin at 401, right col, ¶ 1 (“Thus, the supply unit was made providing square voltage and current pulses with [rise] times (leading edge) of 5 – 60 μs…”). Mozgrin 403, right col, ¶4 (“Regime 2 was characterized by intense cathode sputtering…”) (emphasis added). Mozgrin at 409, left col, ¶ 4 (“The implementation of the high-current magnetron discharge (regime 2) in sputtering … plasma density (exceeding $2x10^{13}$ cm^{-3}).”). Mozgrin at 409, left col, ¶5 (“The high-current diffuse discharge (regime 3) is useful for producing large-volume uniform dense plasmas $n_i \cong 1.5x10^{15} cm^{-3}$…”) Mozgrin at 401, ¶ spanning left and right columns (“Designing the [pulsed supply] unit, we took into account the dependences which had been obtained in [Kudryavtsev] of ionization relaxation on pre-ionization parameters, pressure, and pulse voltage amplitude.”) Mozgrin at 400, left col, ¶ 3 (“Some experiments on magnetron systems of various geometry showed that discharge regimes which do not transit to arcs can be obtained even at high currents.”) Mozgrin at 400, right col, ¶ 1 (“A further increase in the discharge

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