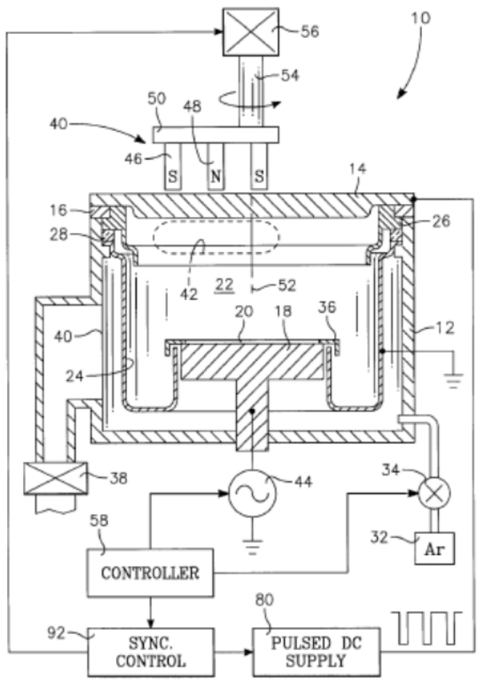
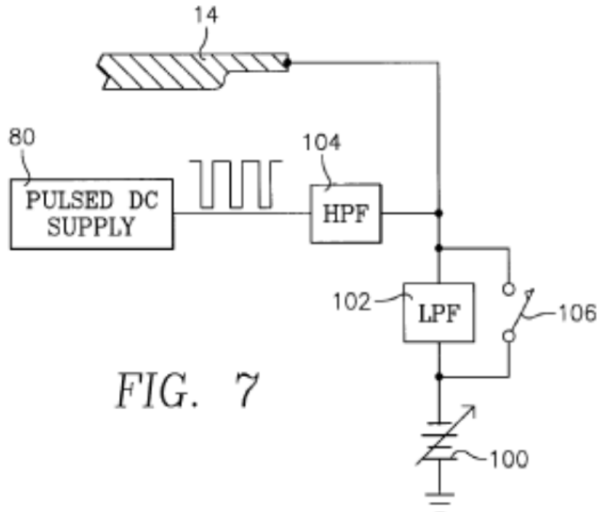
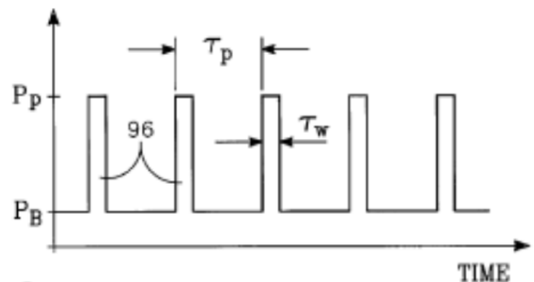
EXHIBIT G.05
U.S. Patent No. 7,808,184

References cited herein:

- U.S. Patent No. 7,808,184 ("'184 Patent")
- U.S. Pat. No. 6,413,382 ("Wang")
- A. A. Kudryavtsev, *et al*, Ionization relaxation in a plasma produced by a pulsed inert-gas discharge, Sov. Phys. Tech. Phys. 28(1), January 1983 ("Kudryavtsev")
- Thornton, J.A., Magnetron sputtering: basic physics and application to cylindrical magnetrons, J. Vac. Sci. Technol. 15(2) 1978 ("Thornton")
- 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")
- Leipold et al., High-electron density, atmospheric pressure air glow discharges, Power Modulator Symposium, 2002 and 2002 High-Voltage Workshop. Conference Record of the Twenty-Fifth International, June 2002 ("Leipold")
- Gudmundsson et al., Evolution of the electron energy distribution and plasma parameters in a pulsed magnetron discharge, Applied Physics Letters, 78(22) May 2001 ("Gudmundsson")

Claims 1-7, 9-17, and 19-20	Wang in view of Kudryavtsev
1. A method of generating a strongly-ionized plasma, the method comprising:	The combination of Wang and Kudryavtsev discloses a method of generating a strongly-ionized plasma. Wang at 7:17-31 ("The background power level P_B is chosen to exceed the minimum power necessary to support a plasma... [T]he application of the high peak power P_P quickly causes the already existing plasma to spread and increases the density of the plasma."). Wang at 7:19-22 ("Preferably, the peak power P_P is at least 10 times the background power P_B, more preferably at least 100 times, and most preferably 1000 times to achieve the greatest effect of the invention."). Wang at 4:29-31 ("…increases the sputtering rate but also at sufficiently high density ionizes a substantial fraction of the sputtered particles into positively charged metal ions."). Wang at 7:31-39 ("…highly ionized sputtering…")
a) supplying feed gas proximate to an anode and a	The combination of Wang and Kudryavtsev discloses supplying feed gas proximate to an anode and a cathode assembly.

Claims 1-7, 9-17, and 19-20	**Wang in view of Kudryavtsev**
cathode assembly; and	Wang at 3:66-4:1 ("A grounded shield 24 protects the chamber walls from sputter deposition and also acts as a grounded anode for the cathode of the negatively biased target 14.") Wang at claim 27 "reactor [has an] anode with respect to a cathode of said target." Wang at 4:5-8 ("A sputter working gas such as argon is supplied from a gas source 32…. [and] flows into the processing region 22"). Wang at 4:20-21 ("a reactive gas, for example nitrogen is supplied to the processing space 22…"). Wang at Fig. 1:  FIG. 1
b) generating a voltage pulse between the anode and the cathode assembly,	The combination of Wang and Kudryavtsev discloses generating a voltage pulse between the anode and the cathode assembly. Wang at Fig. 7:

Claims 1-7, 9-17, and 19-20	**Wang in view of Kudryavtsev**
	 FIG. 7 Wang at 7:61-62 ("The pulsed DC power supply 80 produces a train of negative voltage pulses."). Wang at Fig. 1. Wang at Fig. 6:  FIG. 6 Wang at 3:66-4:1 ("A grounded shield 24 … acts as a grounded anode for the cathode of the negatively biased target 14.")
the voltage pulse having at least one of a controlled amplitude and a controlled rise time that increases an ionization rate so that a rapid	The combination of Wang and Kudryavtsev discloses the voltage pulse having at least one of a controlled amplitude and a controlled rise time that increases an ionization rate so that a rapid increase in electron density and a formation of a strongly-ionized plasma occurs. Wang at 7:28-30 ("… the application of the high peak power P_P instead quickly causes the already existing plasma to spread and increases the density of the plasma."). Wang at 7:19-25 ("Preferably, the peak power P_P is at least 10 times the

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increase in electron density and a formation of a strongly-ionized plasma occurs	background power P_B … and most preferably 1000 times…. A background power P_B of one kW will typically be sufficient…."). Kudryavtsev at 32, right col, ¶¶ 5-6 ("The discharge occurred inside a cylindrical tube…. The gas was preionized by applying a dc current…. A voltage pulse … was applied to the tube."). Kudryavtsev at 31, right col, ¶ 6 ("an explosive increase in n_e [plasma density]. The subsequent increase in n_e then reaches its maximum value, equal to the rate of excitation [equation omitted], which is several orders of magnitude greater than the ionization rate during the initial stage.") Kudryavtsev at Abstract ("electron density increases explosively in time due to accumulation of atoms in the lowest excited states") Kudryavtsev at 34, right col, ¶ 4 ("the effects studied in this work are characteristic of ionization whenever a field is suddenly applied to a weakly ionized gas, they must be allowed for when studying emission mechanisms in pulsed gas lasers, gas breakdown, laser sparks, etc.") Like Kudryavtsev's voltage pulse, application of Wang's voltage pulse (which produces the peak power P_P) to the weakly-ionized plasma rapidly increases the plasma density and the density of free electrons. If one of ordinary skill, did not experience Kudryavtsev's "explosive increase" in plasma density in Wang, it would have been obvious to adjust the operating parameters, e.g., increase the pulse length and/or pressure, so as to trigger Kudryavtsev's fast stage of ionization. One of ordinary skill would have been motivated to use Kudryavtsev's fast stage of ionization in Wang so as to increase plasma density and thereby increase the sputtering rate. Also, Kudryavtsev's fast stage would reduce the time required to reach a given plasma density in Wang, thus reducing the time required for a sputtering process. Further, use of Kudryavtsev's fast stage in Wang would have been a combination of old elements that yielded predictable results. Finally, because Wang's pulse, or the pulse used in the combination of Wang and Kudryavtsev, produced Kudryavtsev's fast stage of ionization, the rise time and amplitude of the pulse result in increasing the ionization rate of excited atoms and creation of a multi-step ionization process. Also, Kudryavtsev states, "[s]ince the effects studied in this work are characteristic of ionization whenever a field is suddenly applied to a weakly ionized gas, they must be allowed for when studying emission mechanisms

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	in pulsed gas lasers, gas breakdown, laser sparks, etc." Kudryavtsev at 34, right col, ¶ 4 (emphasis added). Because Wang applies voltage pulses that "suddenly generate an electric field," one of ordinary skill reading Wang would have been motivated to consider Kudryavtsev and to use Kudryavtsev's fast stage in Wang. Finally, Wang's voltage pulse has both a controlled amplitude and rise time as required by claim 1. Wang specifies that the background power P_B can be 1 kV and that the peak power P_P can be 1,000 times greater than the background power, i.e., 1 MW. Wang at 7:19-25 ("Preferably, the peak power P_P is at least 10 times the background power P_B … and most preferably 1000 times…. A background power P_B of one kW will typically be sufficient…."). One of ordinary skill would have understood that Wang's voltage amplitude was controlled to produce Wang's specified peak power level P_P. The rise time of Wang's voltage pulse is also controlled. Wang at 5:23-26 ("The illustrated pulse form is idealized. Its exact shape depends on the design of the pulsed DC power supply 80, and significant rise times and fall times are expected.")
without forming an arc between the anode and the cathode assembly.	The combination of Wang and Kudryavtsev discloses without forming an arc between the anode and the cathode assembly. Wang at Fig. 6 Wang at 7:3-6 ("Plasma ignition, particularly in plasma sputter reactors, has a tendency to generate particles during the initial arcing, which may dislodge large particles from the target or chamber.") Wang at 7:47-49 ("The initial plasma ignition needs be performed only once and at much lower power levels so that particulates produced by arcing are much reduced."). Wang at 7:13-28 ("Accordingly, it is advantageous to use a target power waveform illustrated in FIG. 6…. As a result, once the plasma has been ignited at the beginning of sputtering prior to the illustrated waveform….”).
2. The method of claim 1 further comprising applying a magnetic field proximate to the cathode assembly.	The combination of Wang and Kudryavtsev discloses applying a magnetic field proximate to the cathode assembly. *See* evidence cited for claim 1. Wang at Fig. 1. Wang at 4:23-25 ("A small rotatable magnetron 40 is disposed in the back

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