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(71) Applicant *(for all designated States except US)*: **LAM RESEARCH, INC.** [US/US]; 4650 Cushing Parkway MS CA1-913, MS CA1-913, Fremont, CA 94538 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **AVOYAN, Armen** [US/US]; 330 N Jackson St, #209, Glendale, CA 91206 (US). **JAFARIAN-TEHRANI, Seyed, Jafar** [IR/US]; 4650 Cushing Parkway, Fremont, CA 94539 (US).

(74) Agents: **RICHIE, David, B.** et al.; Thelen Reid & Priest LLP, P.O. Box 640640, San Jose, CA 95164-0640 (US).

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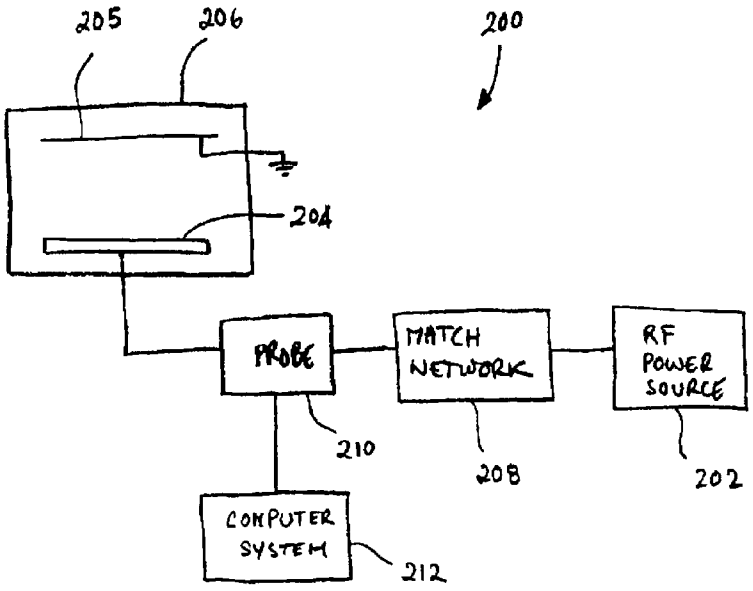
(54) Title: METHOD FOR TOOLMATCHING AND TROUBLESHOOTING A PLASMA PROCESSING SYSTEM



(57) Abstract: A method tests a plasma processing system having a chamber, an RF power source, and a matching network. An RF power signal is generated from the RF power source to the chamber without igniting any plasma within the chamber. The voltage of the RF power signal, the current of the RF power signal, and the phase of the RF power signal, received by the chamber is measured while holding other parameters affecting the chamber constant. A value representative of an impedance of the chamber is computed based on the voltage, the current, and the phase. The value is then compared with a reference value to determine any defects in the plasma processing system. The reference value is representative of the impedance of a defect-free chamber.

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