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13/301,725 21 November 2011 (21.11.2011) US(71) Applicant (for all designated States except US): **LAM RESEARCH CORPORATION** [US/US]; 4650 Cushing Parkway, Fremont, CA 94538-6470 (US).

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(54) Title: TRIODE REACTOR DESIGN WITH MULTIPLE RADIOFREQUENCY POWERS

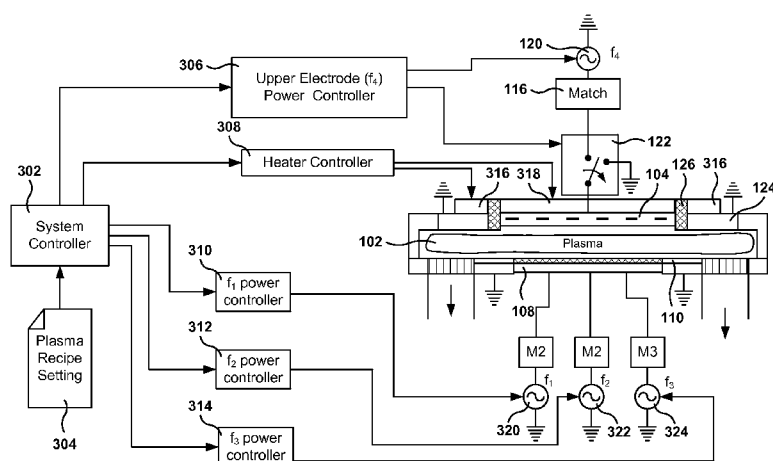


Fig. 3

(57) Abstract: Methods, systems, and computer programs for semiconductor manufacturing are provided. One wafer processing apparatus includes: a top electrode; a bottom electrode; a first radio frequency (RF) power source; a second (RF) power source; a third (RF) power source; a fourth (RF) power source; and a switch. The first, second, and third power sources are coupled to the bottom electrode. Further, the switch is operable to be in one of a first position or a second position, where the first position causes the top electrode to be connected to ground, and the second position causes the top electrode to be connected to the fourth (RF) power source.

