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(71) Applicant: TOKYO ELECTRON LIMITED [JP/JP]; TBS Broadcast Center, 3-6, Akasaka 5-chome, Minato-ku, Tokyo 107 (JP).

(71) Applicant *(for JP only)*: TOKYO ELECTRON ARIZONA, INC. [US/US]; 2120 W. Guadalupe Road, Gilbert, AZ 85233-8205 (US).

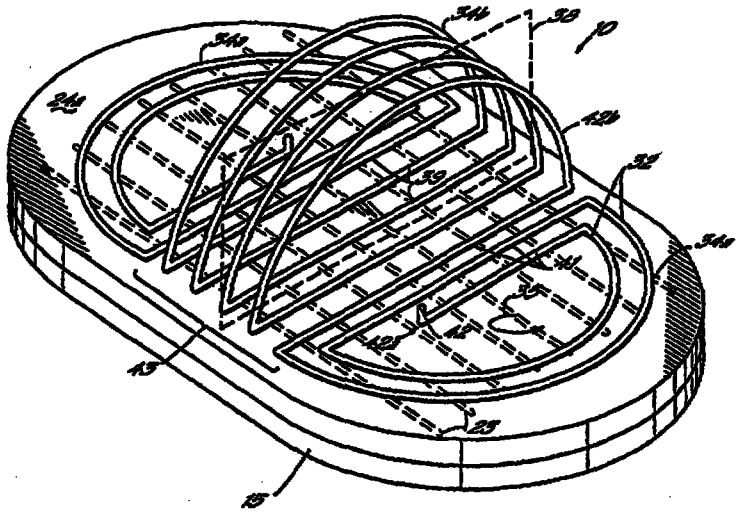
(72) Inventors: BRCKA, Jozef; 914 W. Laurel Avenue, Gilbert, AZ 85233 (US). CONSOLI, Paul, Louis; 129 Essex Street, Beverly, MA 01915 (US).

(74) Agents: SUMME, Kurt, A. et al.; Wood, Herron & Evans, L.L.P., 2700 Carew Tower, Cincinnati, OH 45202 (US).

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(54) Title: APPARATUS FOR IMPROVING PLASMA DISTRIBUTION AND PERFORMANCE IN AN INDUCTIVELY COUPLED PLASMA



(57) Abstract

A processing system (12) for processing a substrate (18) with a plasma (28) comprises a processing chamber (13) defining a processing space (14) and including a substrate support (17) therein for supporting a substrate (18) in the processing space (14) and a gas inlet (20) for introducing a process gas into said processing space (14). A plasma source is operable for creating a plasma (28) in the processing space (14) from process gas introduced therein. The plasma source comprises a dielectric window (24a) which interfaces with the processing chamber (12) proximate the processing space (14) and an inductive element (10) positioned outside of the chamber (12) and proximate the dielectric window (24a). The inductive element (10) is operable for coupling electrical energy through the dielectric window (24a) and into the processing space (14) to create a plasma (28) therein and comprises a variety of alternative designs for providing a dense, uniform plasma.