ABSTRACT

SYSTEMS FOR COOLING RF HEATED CHAMBER COMPONENTS

In one embodiment, a plasma processing device may include a dielectric window, a vacuum chamber, an energy source, and at least one air amplifier. The dielectric window may include a plasma exposed surface and an air exposed surface. The vacuum chamber and the plasma exposed surface of the dielectric window can cooperate to enclose a plasma processing gas. The energy source can transmit electromagnetic energy through the dielectric window and form an elevated temperature region in the dielectric window. The at least one air amplifier can be in fluid communication with the dielectric window. The at least one air amplifier can operate at a back pressure of at least about 1 in-H_2O and can provide at least about 30 cfm of air.

FIG. 1

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