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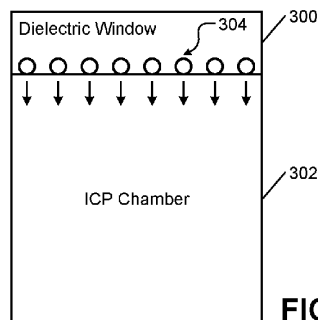


FIG. 3A

(57) **Abstract:** A substrate processing system includes a gas source, an RF source, and a light source. The gas source supplies a first gas to a process module of the substrate processing system. The RF source supplies RF power to the process module to generate plasma when the first gas is supplied to the process module of the substrate processing system. The light source is coupled to the process module to introduce light into the process module during the plasma generation.

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