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Abstract of the Disclosure

PLASMA ETCHING METHOD AND APPARATUS FOR MANUFACTURING A SEMICONDUCTOR DEVICE

Provided is a plasma etching method and apparatus for manufacturing a semiconductor device. The plasma etching apparatus includes a CCD, a light component extractor, a K estimator, a comparator, a memory, a controller, a gas supplyer, and a timer. The plasma etching apparatus also includes: a chamber in which a wafer to be etched is loaded; a first dome sealing an upper end of the chamber; a coil winded on the dome and generation electric field into the chamber; at least one light emission tip disposed through a predetermined portion of the dome, so as to emit light toward the wafer and receive light reflected by the wafer; and a plurality of nozzles, each of which is disposed around light emission tip and through the predetermined portion of the dome, so as to supply gases into the chamber.

Figure 10A

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