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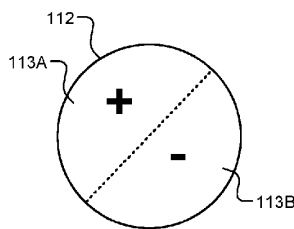


FIG. 2A

(57) Abstract: A substrate processing system includes an electrostatic chuck (ESC) including a baseplate, a ceramic top plate, and a bonding layer arranged between the baseplate and the ceramic top plate. The ceramic top plate includes a first electrostatic electrode and a second electrostatic electrode embedded therein. A controller is configured to during one of N portions of a treatment of a substrate, clamp a substrate by supplying a first polarity to the first electrostatic electrode of the ESC and a second polarity to the second electrostatic electrode of the ESC, where N is an integer greater than one. During another one of the N portions of the treatment of the substrate, the controller is configured to clamp the substrate by supplying the second polarity to the first electrostatic electrode of the ESC and the first polarity to the second electrostatic electrode of the ESC.

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