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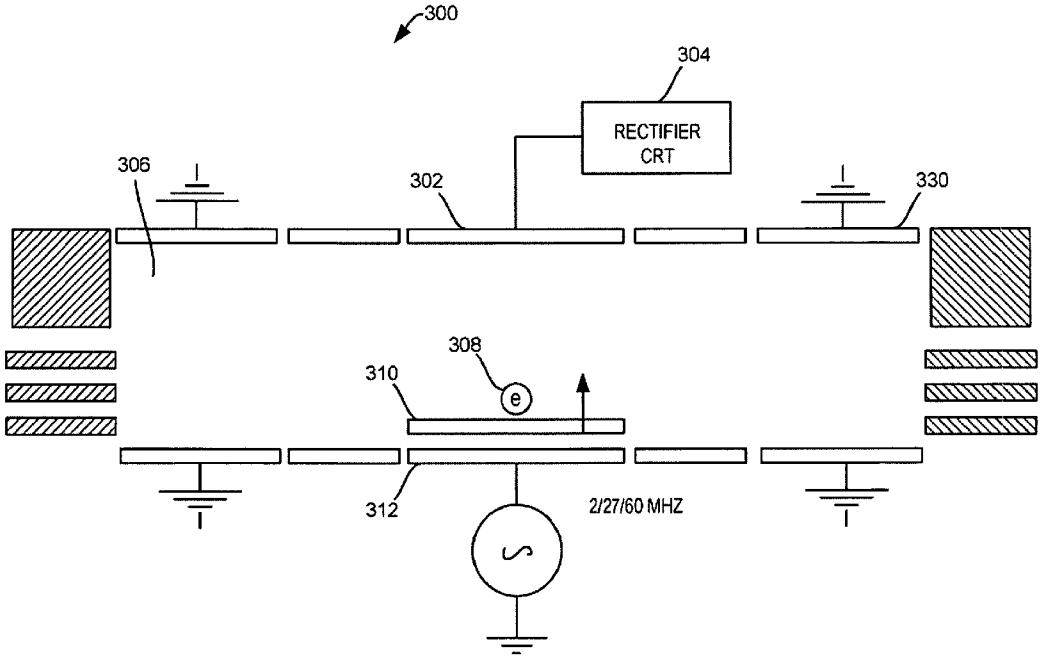
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(54) **Title:** METHOD AND APPARATUS FOR PROCESSING A SUBSTRATE USING PLASMA




(57) **Abstract:** Methods and arrangements for controlling the electron loss to the upper electrode, including techniques and apparatus for biasing the upper electrode more negatively to allow charged species to be trapped within the plasma chamber for a longer period of time, thereby increasing the plasma density. The induced RF signal on the upper electrode is rectified, thus biasing the upper electrode more negatively. The rectified RF signal may also be amplified, thus driving the upper electrode even more negatively, if desired.

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