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(54) Title: CARBON REPLENISHMENT OF SILICON-CONTAINING MATERIALS TO REDUCE THICKNESS LOSS

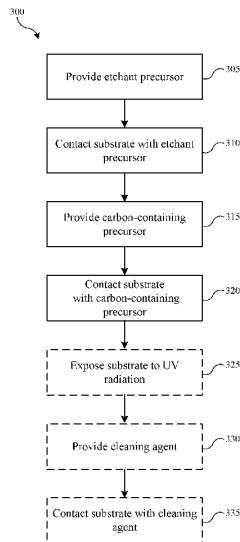


FIG. 3

(57) Abstract: Exemplary methods of semiconductor processing may include providing an etchant precursor to a processing region of a semiconductor processing chamber. A structure may be disposed within the processing region. The structure may include a first silicon-containing material. The structure may include a second silicon-containing material, an oxygen-containing material, or both. The methods may include contacting the structure with the etchant precursor. The contacting with the etchant precursor may etch at least a portion of the second silicon-containing material or the oxygen-containing material from the structure. The methods may include providing a carbon-containing precursor to the processing region of the semiconductor processing chamber. The methods may include contacting the structure with the carbon-containing precursor. The contacting with the carbon-containing precursor may replenish carbon in the first silicon-containing material.

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