a stripping gas source; and

a controller controllably connected to the gas source and the at least one electrode, comprising:

at least one processor; and

computer readable media, comprising:

computer readable code for etching the features into the low-k dielectric layer through the organic mask, comprising:

computer readable code for providing an etch gas from the etch gas source into the plasma processing chamber; and

computer readable code for providing energy from the at least one electrode to form the etch gas into a plasma, which etches features into the low-k dielectric layer;

computer readable code for depositing a fluorocarbon layer on the low-k dielectric layer, comprising:

computer readable code for providing a fluorocarbon deposition gas from the fluorocarbon deposition gas source into the plasma processing chamber; and

computer readable code for providing energy from the at least one electrode to form the fluorocarbon deposition gas into a deposition plasma, which deposits a fluorocarbon layer on the low-k dielectric layer;

computer readable code for curing the fluorocarbon layer; and

computer readable code for stripping the organic mask, comprising:

computer readable code for providing a stripping gas from the stripping gas source into the plasma processing chamber; and

computer readable code for providing energy from the at least one electrode to form the stripping gas into a plasma, which strips the photoresist mask.

~~19. The method, as recited in any of claims 1 to 2, wherein the organic mask is a photoresist mask.~~

~~20. The method, as recited in any of claims 1 to 2 and 19, wherein the curing is performed for at least five minutes.~~

21. The method, as recited in any of claims 1 to 2 and 19 to 20, wherein the etching, depositing, curing, and stripping are performed in a single plasma processing chamber.

22. The method, as recited in claim 21, wherein a common electrode in the single plasma processing chamber is used for etching and stripping.

23. The method, as recited in any of claims 1 to 2 and 19 to 22, wherein the curing is performed for at least ten minutes.

24. The method, as recited in any of claims 1 to 2 and 19 to 22, wherein the curing is performed for at least 24 hours.

25. The method, as recited in any of claims 1 to 2 and 19 to 24, wherein the fluorocarbon layer comprises a hydrogen, nitrogen, or sulfur component.

26. The method, as recited in any of claims 1 to 2 and 19 to 25, wherein at least one of C_4F_8 or C_4F_6 is used to provide the fluorocarbon deposition.

27. The method, as recited in any of claims 1 to 2 and 19 to 26, wherein the curing is performed while maintaining a vacuum.

28. The method, as recited in any of claims 1 to 2 and 19 to 27, wherein the stripping uses a stripping gas ratio with a majority of CO_2.