CLAIMS

1. A process chamber comprising:

a chamber body;

a substrate support positioned in the chamber body; and

a lid assembly located over the chamber body and defining a processing volume within the chamber body, the lid assembly comprising:

a faceplate;

an electrode located between the faceplate and the chamber body; and

an insulating member including:

a cylinder positioned radially inward from the electrode, between the electrode and the processing volume; and

a lip extending radially outwardly from the cylinder between the faceplate and the chamber body.

2. The process chamber of claim 1, wherein the lid assembly further comprises:

an insulating ring positioned between the faceplate and the chamber body.

3. The process chamber of claim 2, wherein the cylinder of the insulating member is further positioned between the insulating ring and the processing volume.

4. The process chamber of claim 1 further comprising a liner positioned on a surface of the chamber body, and wherein the insulating member is separated from the liner.

5. The process chamber of claim 1, wherein the insulating member comprises a ceramic.

6. The process chamber of claim 1, wherein the insulating member comprises a continuous ring.

7. The process chamber of claim 1, wherein a thickness of the insulating member is in a range of about 1 mm to about 7 mm.

8. A lid assembly for a processing system, the lid assembly comprising:

a faceplate;

an electrode disposed between the faceplate and a chamber body of the processing system; and

an insulating member including:

a cylinder positioned radially inward from the electrode, between the electrode and a processing volume within the chamber body; and

a lip extending radially outwardly from the cylinder between the faceplate and the chamber body.

9. The lid assembly of claim 8 further comprising:

an insulating ring disposed between the faceplate and the electrode.

10. The lid assembly of claim 8, wherein the insulating member is further positioned radially inward from the insulating ring and is separated from the electrode and the insulating ring by a gap.

11. The lid assembly of claim 8, wherein the insulating member comprises a ceramic.

12. The lid assembly of claim 8, wherein the insulating member comprises a continuous ring.

13. The lid assembly of claim 8, wherein a thickness of the insulating member is in a range of about 1 mm to about 7 mm.

14. A process chamber comprising:

a chamber body;

a substrate support located in the chamber body, the substrate support comprising a first electrode; and

a lid assembly positioned over the chamber body and defining a processing volume within the chamber body, the lid assembly comprising:

a faceplate;

a second electrode positioned between the faceplate and the chamber body; and

an insulating member including:

a cylinder positioned radially inward from the second electrode, between the second electrode and the processing volume; and

a lip extending radially outwardly from the cylinder between the faceplate and the chamber body.

15. The process chamber of claim 14, wherein the lid assembly further comprises:

an insulating ring positioned between the faceplate and the chamber body, and wherein the cylinder of the insulating member is further positioned between the insulating ring and the processing volume.