Claims

1. A process chamber, comprising:

a chamber body including an optically transparent window;

a lamp housing disposed adjacent to the optically transparent window, the optically transparent window and the lamp housing having a gap therebetween and one or more cooling channels disposed within the lamp housing; and

a plurality of compliant conductors disposed within the gap between the lamp housing and transparent window and in contact with the lamp housing and transparent window.

2. The process chamber of claim 1, wherein each of the compliant conductors has a substantially equal length.

3. The process chamber of claim 1, wherein each of the compliant conductors includes a coating thereon.

4. The process chamber of claim 1, wherein the coating comprises glassy carbon, graphite, boron nitride, or mica.

5. The process chamber of claim 1, wherein the compliant conductors comprise a ceramic.

6. The process chamber of claim 5, wherein the ceramic comprises alumina, magnesia, aluminum nitride, zirconia, silica, or combinations thereof.

7. The process chamber of claim 1, wherein the compliant conductors comprise a metal.

8. The process chamber of claim 7, wherein the metal comprises stainless steel, nickel, copper, iron, inconel, aluminum, or combinations thereof.

9. The process chamber of claim 8, wherein the compliant conductors are brazed or welded to the lamp housing.

10. The process chamber of claim 1, wherein the compliant conductors are mesh or wool comprising metal or ceramic.

11. The process chamber of claim 1, wherein the compliant conductors have a serpentine shape.

12. The process chamber of claim 1, wherein the compliant conductors are shaped as a helical coil.

13. A process chamber, comprising:

a chamber body including an optically transparent window;

a lamp housing disposed adjacent to the optically transparent window, the optically transparent window and the lamp housing having a gap therebetween and one or more cooling channels disposed within the lamp housing; and

a plurality of compliant conductors disposed within the gap between the lamp housing and transparent window and in contact with the lamp housing and transparent window, the compliant conductors including mesh or wool.

14. The processing chamber of claim 13, wherein the mesh or wool is impregnated with a material to increase heat transfer.

15. The processing chamber of claim 14, wherein the impregnating material includes a wax, grease, or compliant polymer.

16. The processing chamber of claim 15, wherein the impregnating material is silicone.

17. The processing chamber of claim 16, wherein the silicone includes particles embedded therein.

18. The processing chamber of claim 17, wherein the particles include metallic flakes.

19. The processing chamber of claim 18, wherein the mesh or wool comprises a metal or a ceramic.

20. A process chamber, comprising:

a chamber body including an optically transparent window;

a lamp housing disposed adjacent to the optically transparent window, the optically transparent window and the lamp housing having a gap therebetween and one or more cooling channels disposed within the lamp housing; and

a plurality of compliant conductors disposed within the gap between the lamp housing and transparent window and in contact with the lamp housing and transparent window, wherein the compliant conductors include a coating on an end thereof in contact with the transparent window.