CLAIMS

1. A method of operating a spatial deposition tool, the method comprising:

providing a processing chamber comprising *x* number of spatially separated isolated processing stations, the processing chamber having a processing chamber temperature and each processing station independently having a processing station temperature, the processing chamber temperature different from the processing station temperatures;

rotating a substrate support assembly having a plurality of substrate support surfaces aligned with the *x* number of spatially separated isolated processing stations *rx* so that each substrate support surface rotates (360/*x*) degrees in a first direction to an adjacent substrate support surface, *r* being a whole number greater than or equal to 1; and

rotating the substrate support assembly *rx* times so that each substrate support surface rotates (360/*x*) degrees in a second direction to the adjacent substrate support surface;

wherein each of the plurality of substrate support surfaces respectively comprise a heater, and

wherein a sealing platform is connected to the heater at a position below and surrounding the heater.

2. The method of claim 1, wherein *x* is an integer in a range of from 2 to 10.

3. The method of claim 1, wherein *r* is in the range of 1 to 10.

4. The method of claim 1, wherein *r* is 1, 2, 3 or 4.

5. The method of claim 1, wherein the plurality of substrate support surfaces are substantially coplanar.

6. The method of claim 1, further comprising controlling one or more of the processing chamber temperature or the processing station temperatures.

7. The method of claim 1, further comprising controlling speed of rotation of the plurality of substrate support assembly.

8. A method of operating a spatial deposition tool, the method comprising:

providing a processing chamber comprising *x* number of spatially separated isolated processing stations, the processing chamber having a processing chamber temperature and each processing station independently having a processing station temperature, the processing chamber temperature different from the processing station temperatures;

rotating a substrate support assembly having a plurality of substrate support surfaces aligned with the *x* number of spatially separated isolated processing stations (360/*x*) degrees in a first direction to an adjacent substrate support surface;

rotating the substrate support assembly (360/*x*) degrees in a second direction to the adjacent substrate support surface, wherein the rotations in the first direction and the rotations in the second direction are repeated *n* times, with *n* being a whole number greater than or equal to 1;

rotating the substrate support assembly (360/x) degrees in a first direction two times;

rotating the substrate support assembly (360/x) degrees in the first direction and then rotating the substrate support assembly (360/x) degrees in the second direction, the rotations in the first direction and the second direction are repeated *m* times, with *m* being a whole number greater than or equal to 1; and

rotating the substrate support assembly (360/x) degrees in the second direction;

wherein each of the plurality of substrate support surfaces respectively comprise a heater, and

wherein a sealing platform is connected to the heater at a position below and surrounding the heater.

9. The method of claim 8, wherein *x* is an integer in a range of from 2 to 10.

10. The method of claim 8, wherein the plurality of substrate support surfaces are substantially coplanar.

11. The method of claim 8, further comprising controlling one or more of the processing chamber temperature or the processing station temperatures.

12. The method of claim 8, further comprising controlling speed of rotation of the plurality of substrate support assembly.

13. A method of forming a film, the method comprising:

loading at least one wafer onto *x* number of substrate support surfaces in a substrate support assembly, each of the substrate support surfaces aligned with *x* number of spatially separated isolated processing stations;

rotating the substrate support assembly *rx* so each substrate support surface rotates (360/*x*) degrees in a first direction to an adjacent substrate support surface, *r* being a whole number greater than or equal to 1;

rotating the substrate support assembly *rx* times so that each substrate support surface rotates (360/*x*) degrees in a second direction to the adjacent substrate support surface; and

at each processing station, exposing a top surface of the at least one wafer to a process condition to form a film having a substantially uniform thickness;

wherein each of the substrate support surfaces respectively comprise a heater, and

wherein a sealing platform is connected to the heater at a position below and surrounding the heater.

14. The method of claim 13, wherein the at least one wafer is stationary when the film is formed.

15. The method of claim 13, wherein *x* is an integer in a range of from 2 to 10.

16. The method of claim 13, wherein *r* is in the range of 1 to 10.

17. The method of claim 13, wherein *r* is 1, 2, 3 or 4.

18. The method of claim 13, wherein the substrate support surfaces further comprise electrostatic chucks.