Claims:

1. A substrate carrier, comprising:

a base plate, wherein the base plate is a thin, solid plate with no through holes or embedded components; and

a plurality of raised portions extending from the base plate, wherein the plurality of raised portions include first raised portions and second raised portions, wherein all of the first raised portions are disposed radially inward from the second raised portions, wherein the base plate and the plurality of raised portions define pockets configured to retain a plurality of substrates, wherein each of the second raised portions are three-sided, and wherein an upper surface of the second raised portions have a greater surface area than an upper surface of the first raised portions.

2. The substrate carrier of claim 1, wherein each one of the plurality of raised portions have three sides that are curved.

3. The substrate carrier of claim 2, wherein at least two of the three sides of each one of the plurality of raised portions are configured to partially define adjacent pockets.

4. The substrate carrier of claim 1, wherein the pockets include a central pocket and all of the first raised portions are disposed about a center of the base plate along a common circle and have a side facing the center that is curved radially outward from the center to define the central pocket.

5. The substrate carrier of claim 1, wherein the second raised portions have two sides that are curved radially inward and a third side that is curved radially outward.

6. The substrate carrier of claim 1, wherein the plurality of raised portions are generally triangular shaped.

7. The substrate carrier of any of claims 1 to 6, wherein the plurality of raised portions includes six first raised portions and six second raised portions configured to define a central pocket and six peripheral pockets.

8. The substrate carrier of ~~any of claims 1 to 6~~ claim 7, wherein the central pocket and peripheral pockets are each configured to hold a substrate having a diameter of about 4.0 inches.

9. The substrate carrier of any of claims 1 to 6, wherein the first raised portions extend about 0.01 inches to about 0.04 inches from the base plate.

10. The substrate carrier of any of claims 1 to 6, wherein the base plate has a thickness of about 0.03 inches to about 0.05 inches.

11. The substrate carrier of any of claims 1 to 6, wherein the substrate carrier is made of silicon (Si), silicon carbide (Sic), or silicon-infiltrated, silicon carbide (SiSiC).

12. The substrate carrier of any of claims 1 to 6, wherein the base plate has an outer diameter of about 11.5 inches to about 12.5 inches.

13. The substrate carrier of any of claims 1 to 6, wherein the base plate includes a notch that extends radially inward from an outer sidewall of the base plate.

14. The substrate carrier of any of claims 1 to 6, wherein the first raised portions include a radius between adjacent sides of the first raised portions.

15. A process chamber, comprising:
a chamber body defining an interior volume;
a substrate support disposed in the interior volume; and
the substrate carrier as described in any of claims 1 to 14.