

What is claimed is:

1. A physical vapor deposition (PVD) chamber comprising:
 - a plurality of cathode assemblies;
 - a rotatable pedestal configured to support a substrate, the pedestal comprising
 - 5 an edge;
 - an inner deposition ring adjacent to the edge of the edge of the pedestal; and
 - an outer deposition ring adjacent to the inner deposition ring.
2. The PVD chamber of claim 1, wherein a portion of the inner deposition ring and the
- 10 outer deposition ring overlap.
3. The PVD chamber of claim 2, wherein the inner deposition ring is configured to rotate with the rotatable pedestal.
- 15 4. The PVD chamber of claim 3, wherein the inner deposition ring is configured to be stationary and not rotate.
5. The PVD chamber of claim 4, further comprising a cover ring which overlaps with a portion of the outer deposition ring.
- 20 6. The PVD chamber of claim 2, wherein the inner deposition ring comprises a protruding rim extending downwardly from the inner deposition ring.
7. The PVD chamber of claim 6, wherein the outer deposition ring comprises a
- 25 protruding rim extending upwardly from the outer deposition ring.
8. The PVD chamber of claim 7, wherein the outer deposition ring protruding rim and the inner deposition protruding rim overlap.

9. A physical vapor deposition (PVD) chamber comprising:
- a plurality of cathode assemblies;
 - 5 a rotatable pedestal configured to support a substrate, the pedestal comprising an edge;
 - an inner deposition ring adjacent to the edge of the edge of the pedestal;
 - an outer deposition ring adjacent to the inner deposition ring; and
 - 10 a motor coupled to a shaft to rotate the rotatable pedestal in a range of 10-20 revolutions per minute (RPM), a rotational acceleration in a range of 0.10-15 RPM/second and a deceleration in a range of 0.10-0.15 RPM/second.
10. The PVD chamber of claim 9, wherein a portion of the inner deposition ring and the outer deposition ring overlap.
- 15 11. The PVD chamber of claim 10, wherein the inner deposition ring is configured to rotate with the rotatable pedestal.
12. The PVD chamber of claim 11, wherein the inner deposition ring is configured to be stationary and not rotate.
- 20 13. The PVD chamber of claim 12, further comprising a cover ring which overlaps with a portion of the outer deposition ring.
- 25 14. The PVD chamber of claim 10, wherein the inner deposition ring comprises a protruding rim extending downwardly from the inner deposition ring.

15. The PVD chamber of claim 14, wherein the outer deposition ring comprises a protruding rim extending upwardly from the outer deposition ring.
16. The PVD chamber of claim 15, wherein the outer deposition ring protruding rim
5 and the inner deposition protruding rim overlap.
17. A method of depositing a material layer comprising:
placing a substrate in a PVD chamber comprising a plurality of cathode
assemblies; a rotatable pedestal configured to support a substrate, the pedestal
10 comprising an edge; an inner deposition ring adjacent to the edge of the edge of the
pedestal; an outer deposition ring adjacent to the inner deposition ring; and
depositing a material layer on the substrate.
18. The method of claim 17, wherein the substrate comprises an EUV mask blank
15 reticle, and the method further comprises placing EUV mask blank reticle on a carrier
base and placing the carrier base on the rotatable pedestal.
19. The method of claim 18, further comprising rotating the inner deposition ring
with the rotatable pedestal and maintaining outer deposition ring stationary.
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20. The method of claim 19, further comprising rotating the rotatable pedestal in a
range of 10-20 revolutions per minute (RPM), a rotational acceleration in a range of
0.10-15 RPM/second and a deceleration in a range of 0.10-0.15 RPM/second.