

WHAT IS CLAIMED IS:

1. A substrate treating apparatus comprising:

an equipment front end module (EFEM) having a load port and an index robot;

a process chamber for the substrate treating process;

a transfer chamber having a transfer robot for carrying in or carrying out the substrate in respective to the process chamber; and

a loadlock chamber positioned between the transfer chamber and the EFEM, and having a substrate support unit for supporting a substrate and a cover support unit for supporting a cover that is positioned around an outer circumference of the substrate and then moved to the transfer chamber with the substrate when the substrate is carried in the process chamber for treating process.

2. The substrate treating apparatus of claim 1, wherein the substrate support unit includes a first substrate support unit for supporting a bottom surface of the substrate.

3. The substrate treating apparatus of claim 1 or 2, wherein the substrate support unit includes a second substrate support unit for supporting an outer circumference of the substrate.

4. The substrate treating apparatus of claim 1, wherein the cover support unit may be positioned outer side of the substrate support unit.

5. The substrate treating apparatus of claim 1, wherein the cover support unit is positioned such that its top end is higher by predetermined length than a top end of the substrate support unit.

6. The substrate treating apparatus of claim 1, further comprises a pusher positioned outer side of the substrate support unit, and movable to a lateral direction of the substrate which is placed in the substrate support unit.

7. The substrate treating apparatus of claim 6, wherein a plurality of the pushers are provided to face each other with respect to the substrate.

8. The substrate treating apparatus of claim 1, wherein a plurality of the process chambers are provided, and the loadlock chamber have a plurality of transfer areas, wherein each of the transfer areas having the substrate support unit and the cover support unit.

9. The substrate treating apparatus of claim 8, wherein each of the transfer areas provides a carry in path where the substrate is carried in from the EFEM to the transfer chamber, and a carry out path where the substrate is carried out from the transfer chamber to the EFEM.

10. The substrate treating apparatus of claim 8 or 9, wherein the number of the transfer areas is more than the number of the process chambers.

11. The substrate treating apparatus of claim 1, wherein the process chamber performs a process treatment through plasma.

12. A substrate treating method comprising:
- carrying in a untreated substrate to a loadlock chamber;
- placing a cover on outer circumference of the substrate within the loadlock chamber;
- carrying out the untreated substrate where the cover is placed from the loadlock chamber to a transfer chamber; and
- carrying in the untreated substrate where the cover is placed to a process chamber.
13. The substrate treating method of claim 12, wherein the placing the cover includes:
- lining up the untreated substrates vertically as the untreated substrates are positioned under the cover, which is placed in the loadlock chamber; and
- elevating the untreated substrates in the cover direction.
14. The substrate treating method of claim 13, wherein the cover placed in the loadlock chamber is provided as placed in a cover support unit, which is placed in an outer side of a substrate support unit for supporting the substrate in the loadlock chamber.
15. The substrate treating method of claim 12, wherein the carrying in the untreated substrate to the loadlock chamber is processed by an index robot of an EFEM, and placing the cover and carrying out the untreated substrate from the loadlock chamber is processed by a transfer robot of the transfer chamber.

16. The substrate treating method of claim 12, wherein the process chamber treats the substrate using plasma.

17. A substrate treating method comprising:

carrying in a treated substrate from a transfer chamber to a loadlock chamber, and a cover is placed on outer circumference of the substrate;

placing the cover inner space of the loadlock chamber;

placing the treated substrate in a substrate support unit which is placed in the loadlock chamber; and

carrying out the substrate to an EFEM.

18. The substrate treating method of claim 17, wherein the placing the cover inner space of the loadlock chamber includes:

placing the treated substrate upper side of a cover support unit which is placed in the loadlock chamber; and

moving the treated substrate downward.

19. The substrate treating method of claim 17, wherein the carrying out the substrate to the EFEM is processed by an index robot placed in the EFEM, and carrying in the substrate to the loadlock chamber and placing the substrate in the support unit are processed by a transfer robot placed in the transfer chamber.