

What is claimed is:

1. A method for substrate processing, comprising:
 - generating a plasma in a first process chamber while a substrate is positioned therein;
 - generating a fingerprint of the substrate based on a plurality of sensors in the first process chamber;
 - comparing the fingerprint to a plurality of stored fingerprint models to determine if the substrate is deformed; and
 - selecting, based on a determination that the substrate is deformed, a substrate processing program for the substrate to correct the substrate deformation.
2. The method of claim 1, further comprising:
 - executing the selected substrate processing program in the first process chamber; and
 - correcting, in response to executing the selected substrate processing program, the substrate deformation.
3. The method of claim 2, further comprising:
 - subsequent to correcting the substrate deformation, transferring the substrate to a second process chamber, the second process chamber being coupled to the first process chamber via a transfer chamber; and
 - performing a second operation in the second process chamber.
4. The method of claim 1, further comprising:
 - transferring the substrate to a second process chamber;
 - executing the selected substrate processing program in the second process chamber; and
 - correcting, in response to executing the selected substrate processing program, the substrate deformation.

5. The method of claim 1, wherein the plurality of sensors is configured to detect a low-frequency or a high-frequency reflected power.
6. The method of claim 1, wherein the substrate deformation is one of a compressive bow or a tensile bow and each fingerprint model is associated with a compressive bow or a tensile bow.
7. A method for substrate processing, comprising:
 - generating a fingerprint of a substrate positioned in first process chamber;
 - comparing the fingerprint to a plurality of stored fingerprint models, wherein each fingerprint model is associated with a type of bow of the substrate; and
 - selecting, based on the comparing, a substrate processing program for the substrate to correct a substrate bow.
8. The method of claim 7, further comprising the fingerprint being generated based on a plurality of sensors in the first process chamber configured to detect a low-frequency or a high-frequency reflected power to determine the substrate bow.
9. The method of claim 8, further comprising:
 - executing the selected substrate processing program in the first process chamber; and
 - correcting, in response to executing the selected substrate processing program, the substrate bow.
10. The method of claim 7, further comprising:
 - transferring the substrate to a second process chamber;
 - disposing the substrate on a substrate support in the second process chamber;
 - executing the selected substrate processing program in the second process chamber; and

correcting, in response to executing the selected substrate processing program, the substrate bow.

11. The method of claim 12, further comprising:

subsequent to correcting the substrate bow, performing a second operation in the second process chamber, wherein the second operation comprises deposition, etching, or cleaning.

12. A computer-readable storage medium configured to execute instructions to cause a system to:

generate a plasma in a first process chamber, a substrate being positioned in the first process chamber;

generate a fingerprint of the substrate based on a plurality of sensors in the first process chamber, the plurality of sensors being configured to detect a low-frequency or a high-frequency reflected power;

compare the fingerprint to a plurality of stored fingerprint models to determine if the substrate is deformed; and

select, based on a determination that the substrate is deformed, a substrate processing program for the substrate to correct substrate deformation.

13. The computer-readable storage medium of claim 15, further comprising the system being configured to:

execute the selected substrate processing program in the first process chamber; and

correct, in response to executing the selected substrate processing program, the substrate deformation.

14. The computer-readable storage medium of claim 15, further comprising the system being configured to:

transfer the substrate to a second process chamber;

position the substrate on a substrate support in the second process chamber;

execute the selected substrate processing program in the second process chamber; and

correct, in response to executing the selected substrate processing program, the substrate deformation.

15. The computer-readable storage medium of claim 15, wherein the substrate deformation is one of a compressive bow or a tensile bow, wherein each fingerprint model is associated with a compressive bow or a tensile bow.