

What is claimed is:

1. A method of processing a substrate, comprising:
positioning the substrate in a process chamber, the substrate having a plurality of substrate features;
depositing a conformal layer on the substrate features, such that a seam is formed between neighboring substrate features; and
treating the substrate with a high pressure anneal performed at a pressure of about 1 bar to about 70 bar in the presence of an oxidizer, such that the volume of the seams within the conformal layer are reduced.
2. The method of claim 1, wherein the oxidizer comprises steam.
3. The method of claim 1, wherein the conformal layer comprises a silicon layer, a metal layer, a metal oxide layer, or combinations thereof.
4. The method of claim 1, wherein the plurality of substrate features comprise a trench.
5. The method of claim 1, wherein the depositing a conformal layer on the plurality of substrate features comprises chemical vapor deposition.
6. The method of claim 5, wherein the depositing the conformal layer comprises flowing a precursor into the process chamber, wherein the precursor comprises silicon and hydrogen.
7. The method of claim 1, wherein the volume of the conformal layer expands during the high pressure anneal.
8. A method of processing a substrate, comprising:
positioning the substrate in a process chamber, the substrate having a plurality of substrate features;

depositing a conformal layer on the substrate features, such that a seam is formed between neighboring substrate features, wherein the conformal layer is crystalline in structure; and

treating the substrate with a high pressure anneal in the presence of an oxidizer, such that a volume of the seams within the conformal layer are reduced.

9. The method of claim 8, wherein the treating the substrate causes the conformal layer disposed on the substrate feature to chemically react with the conformal layer disposed on the neighboring substrate feature.

10. The method of claim 8, wherein the high pressure anneal is performed for a time of about 5 minutes to about 120 minutes, and wherein the high pressure anneal is performed at a pressure of about 1 bar to about 70 bar.

11. The method of claim 8, wherein the conformal layer comprises a silicon layer, a metal layer, a metal suboxide layer, or combinations thereof.

12. The method of claim 8, wherein the plurality of substrate features comprise a trench.

13. The method of claim 8, wherein the depositing a conformal layer on the plurality of substrate features comprises chemical vapor deposition.

14. The method of claim 13, wherein the depositing the conformal layer comprises flowing a precursor into the process chamber, wherein the precursor comprises silicon and hydrogen.

15. A method of processing a substrate, comprising:

positioning the substrate in a process chamber, the substrate having a plurality of substrate features;

depositing a conformal layer on the substrate features, such that a seam is formed between neighboring substrate features, wherein the conformal layer is crystalline in structure; and

treating the substrate with a high pressure anneal performed at a pressure of about 1 bar to about 70 bar in the presence of an oxidizer, such that a volume of the seams within the conformal layer are reduced, wherein the volume of the conformal layer expands during the high pressure anneal.