WHAT IS CLAIMED IS:

1. A method of forming features on a wafer using a replication process, the method comprising:

placing a wafer on a vacuum chuck, wherein a first surface of the wafer that faces the vacuum chuck includes features that project toward the vacuum chuck, and wherein the vacuum chuck includes a central recessed surface on which a silicone mat is disposed;

applying pressure to a second surface of the wafer on a side of the wafer opposite its first surface such that the features of the wafer on its first surface are in contact with the silicone mat, and wherein part of the first surface of the wafer near its periphery is in contact with an elevated section of the vacuum chuck that includes a vacuum channel;

generating a vacuum using the vacuum channel so as to hold the wafer to the vacuum chuck; and

subsequently bringing a replication tool into contact with the second surface of the wafer to form features on the second surface of the wafer using a replication process.

2. The method of claim 1 wherein the wafer is an optics wafer and the features of the wafer that project toward the vacuum chuck are lens elements.

3. A method of forming features on a wafer, the method comprising:

placing a wafer on a vacuum chuck, wherein a first surface of the wafer that faces the vacuum chuck includes features that project toward the vacuum chuck, and wherein the vacuum chuck includes a recessed surface on which a non-sticky, soft, elastic and non-abrasive material is disposed such that the features of the wafer are in contact with the material on the recessed surface of the vacuum chuck, and wherein portions of the first surface of the wafer near its periphery are in contact with an elevated section of the vacuum chuck that includes a vacuum channel;

generating a vacuum to hold the wafer to the vacuum chuck; and

subsequently bringing a replication tool into contact with a second surface of the wafer on a side of the wafer opposite its first surface to form replicated features on the second surface of the wafer.

4. The method of claim 3 further including applying pressure to the second surface of the wafer prior to generating the vacuum to hold the wafer to the vacuum chuck.

5. The method of claim 3 wherein one or more of placing the wafer on the vacuum chuck, generating the vacuum, and bringing the replication tool into contact with the second surface of the wafer, are automated.

6. The method of claim 3 wherein the non-sticky, soft, elastic and non-abrasive material is composed of silicone.

7. The method of claim 3 wherein the non-sticky, soft, elastic and non-abrasive material is composed of a Si-based organic, elastomeric polymer.

8. The method of claim 7 wherein the polymer is polydimethylsiloxane.

9. The method of claim 3 wherein the wafer is an optics wafer and the features of the wafer that project toward the vacuum chuck are lens elements.

10. The method of claim 3 wherein a thickness of the non-sticky, soft, elastic and non-abrasive material is at least 0.2 mm

11. The method of claim 10 wherein the thickness of the non-sticky, soft, elastic and non-abrasive material is at least 0.5 mm.

12. A method of forming a wafer stack, the method comprising:

using a vacuum chuck to hold a first wafer, wherein the vacuum chuck

includes a first surface with a vacuum groove, wherein the first surface of the vacuum chuck includes a central region that is encircled by the vacuum groove and an outer region that encircles the vacuum groove, and wherein the central region and the outer region of the first surface of the vacuum chuck are at substantially the same height, wherein a first surface of the first wafer that faces the vacuum chuck includes a plurality of features thereon that contact the central region of the vacuum chuck's first surface, the first surface of the first wafer further including a sealing ring that contacts the outer region of the vacuum chuck's first surface; and

bringing a second wafer into contact with a second surface of the first wafer, wherein the second surface of the first wafer is on a side of the first wafer opposite its first surface.

13. The method of claim 12 wherein the sealing ring extends beyond the first surface of the first wafer substantially the same distance as the features on the first surface of the first wafer.

14. The method of claim 13 wherein the features on the first surface of the first wafer comprise bonding pads.

15. The method of claim 14 wherein each of the bonding pads and the sealing ring comprises an electrical contact and solder paste.

16. The method of claim 14 wherein each of the features and the sealing ring is composed of the same materials and extends substantially the same distance beyond the first surface of the first wafer.

17. The method of claim 14 wherein the second wafer is a spacer wafer.

18. The method of claim 12 further including applying pressure to the second surface of the first wafer prior to generating the vacuum to hold the first wafer to the

vacuum chuck.

19. The method of claim 12 wherein one or more of placing the first wafer on the vacuum chuck, generating the vacuum, and bringing the second wafer into contact with the second surface of the first wafer, are automated.

20. The method of claim 12 including generating a vacuum to hold the first wafer to the vacuum chuck.