CLAIMS:

1. An alkaline solution for forming pyramidal texture on mono-crystalline silicon substrate, said solution comprising:

an aqueous solution of ~~about~~substantially 0.5% to ~~about~~substantially 3% by weight of hydroxide; and

dissolved silicon in the range of ~~about 10~~substantially 15 g/L to ~~about~~substantially 45 g/L.

2. An alkaline solution according to claim 1, wherein concentration of the dissolved silicon ranges from ~~about~~substantially 20 g/L to ~~about~~substantially 40 g/L.

3. An alkaline solution according to claim 1 or 2, wherein said hydroxide is sodium or potassium hydroxide.

4. Use of the texturing solution according to any one of claims 1-3, wherein a chemically polished silicon wafer is immersed in said texturing solution for a time ranging from ~~about~~substantially 4 minutes to ~~about~~substantially 9 minutes to produce generally a pyramidal texture size of ~~about~~substantially 2-4 microns when said texturing solution is heated between ~~about~~substantially 65 to ~~about~~substantially 95 degree C.

5. Use according to claim 4, wherein temperature of said texturing solution is maintained between ~~about~~substantially 80 degree C to ~~about~~substantially 90 degree C.

6. A method of texturing a mono-crystalline silicon wafer, said method comprising:

immersing said mono-crystalline silicon wafer in an aqueous solution of substantially 0.5-3% by weight a hydroxide with dissolved silicon for a time ranging from ~~about~~substantially 4 minutes to ~~about~~substantially 9 minutes to produce generally a pyramidal texture size of ~~about~~substantially 2-4 microns, with said dissolved silicon having a concentration ranging from ~~about 10~~substantially 15 g/L to ~~about~~substantially 45 g/L; and

maintaining said aqueous solution at a temperature of between ~~about~~substantially 65 degree C to ~~about~~substantially 95 degree C.

7. A method according to claim 6, wherein said temperature is maintained between ~~about~~substantially 80 degree C to ~~about~~substantially 90 degree C.

8. A method according to claim 6 or 7, wherein said hydroxide is sodium or potassium hydroxide.

9. A method according to any one of claims 6-8, further comprising:

rinsing said silicon wafer in an aqueous solution of hydrochloric acid followed by rinsing it in deionised water.

10. A method according to any one of claims 6-9 is preceded by:

cleaning said silicon wafer in acetone followed by rinsing it in deionised water.

11. A method according to claim 10, wherein said cleaning in acetone is followed by cleaning in an alcohol.

12. A method according to claim 10 or 11, wherein said cleaning and rinsing are carried out in an ultrasonic cleaner.