THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A synthetic biocidal surface comprising an array of nanospikes that are lethal to cells on said surface; wherein at least some of said nanospikes are branched.

2. The surface of claim 1 wherein said surface is hydrophilic.

3. The surface of either claim 1 or claim 2 wherein diameter of said nanospikes is greater at a base thereof than at a free end thereof.

4. The surface of any one of claims 1 to 3 wherein said nanospikes are from 20 nm to 300 nm in diameter at half maximum height.

5. The surface of any one of claims 1 to 4 wherein the nanospikes are spaced from 200 nm to 700 nm apart from centre to centre.

6. The surface of any one of claims 1 to 5 wherein said nanospikes are capable of flexing to an extent that tips of adjacent nanospikes within said array can come together.

7. The surface of any one of claims 1 to 6 wherein Young's modulus of elasticity of the nanospikes is from 10 GPa to 300 GPa.

8. The surface of any one of claims 1 to 7 wherein said nanospikes are from 100 nm to 600 nm in height.

9. The surface of any one of claims 1 to 8 wherein branching is at or towards a free end of said nanospikes.

10. The surface of any one of claims 1 to 9 wherein a substrate from which said surface is formed comprises silicon.

11. The surface of any one of claims 1 to 9 wherein a substrate from which said surface is formed comprises boron-doped silicon.

12. The surface of any one of claims 1 to 9 wherein said surface comprises black silicon (b-Si).

13. The surface of any one of claims 1 to 9 wherein a substrate from which said surface is formed comprises metal.

14. The surface of claim 13 wherein the metal comprises titanium, gold, platinum, silver, cobalt, chromium, vanadium, tantalum, nickel, magnesium, manganese, molybdenum or tungsten; preferably cobalt chrome, nickel titanium, titanium vanadium aluminium or stainless steel.

15. The surface of any one of claims 1 to 14, wherein tips of said nanospikes are from 4 nm to 50 nm in diameter.

16. The surface of any one of claims 1 to 15, wherein at least some of the nanospikes are disordered.

17. A device, tool, fitting or apparatus comprising a surface of any one of claims 1 to 16.

18. The device, tool, fitting or apparatus of claim 17 which is selected from walls, floors, ceilings, hand rails, door knobs, handles, seat covers, tables, chairs, light switches, toilets, taps, sinks, basins, bench tops, beds, mattress and pillow covers, hospital furniture, food preparation surfaces, cooking and food preparation utensils and devices, food and beverage packaging and storage vessels, food wrap, medical, surgical, veterinary and dental tools, instruments and equipment, medical, dental and veterinary implants, gloves, combs, brushes, razors, scissors, food and beverage mixers and processing / packaging devices or machines, food and beverage processing lines, abattoir fittings and tools, protective clothing, goggles and glasses, water and sewerage pipes, tanks and drains, boat hulls and aquatic and marine installations.

19 A non-therapeutic method of eliminating cells or reducing cellular survival wherein cells are exposed to a synthetic biocidal surface of any one of claims 1 to 16.

20. The method of claim 19 wherein the cells are bacterial cells, bacterial spores, virus infected cells, algae cells or marine or aquatic organism cells.

21. A method of lysing cells for analysis wherein cells to be analysed are exposed to a synthetic biocidal surface of any one of claims 1 to 16.