CLAIMS

1. A structure, comprising:

an opening extending into an integrated configuration, the opening having a sidewall; and

a material within the opening; the material comprising differing dimensioned structures being configured to create an undulating topography relative to the sidewall; the undulating topography having a surface roughness characterized by a mean roughness parameter R_{mean} which is the mean peak-to-valley distance along the undulating topography; the R_{mean} being at least about 4 nm, the differing dimensioned structures comprising a first dimension along the sidewall and a second dimension perpendicular to the first dimension, the first dimension being the greater dimension of the differing dimensioned structures, the differing dimensioned structures comprise amorphous structures.

2. The structure of claim 1 wherein the material is a first material, and further comprising a second material within the opening and along at least a portion of the undulating topography; the second material being compositionally different than the first material.

3. The structure of claim 2 wherein the first material includes at least one discrete grain which is at least partially surrounded by the second material.

4. The structure of claim 2 wherein the first material is an insulative material.

5. The structure of claim 2 wherein the first material is a conductive material.

6. The structure of claim 2 wherein the first material is a semiconductive material.

7. The structure of claim 2 wherein the first material includes one or more metals.

8. The structure of claim 2 wherein the first material includes one or more metals in combination with one or more of boron, carbon, silicon, germanium, nitrogen and oxygen.

9. The structure of claim 2 wherein the first material includes one or more of Cu, Al, Ag, Au, W, Ti and Fe.

10. The structure of claim 9 wherein the second material includes one or more titanium nitride, silicon nitride, aluminum oxide, tungsten, silicon dioxide and semiconductor material.

11. The structure of claim 2 wherein the second material includes one or more Ti, W and Si.

12. The structure of claim 11 wherein the second material further includes one or both of O and N.

13. The structure of claim 2 wherein the first material comprises one or both of Si and Ge.

14. The structure of claim 13 wherein the first material further includes one or more additional constituents selected from the group consisting of B, P and As; with a total concentration of said additional constituents within the first material being within a range of from about 0.5 at% to about 5 at%.

15. The structure of claim 2 wherein the surface roughness is also characterized by a maximum roughness parameter R_{max} which is the maximum peak-to-valley distance along the undulating topography; and wherein the R_{max} is at least about 10 nm.

16. The structure of claim 2 wherein the R_{mean} is at least about

10 nm.

17. The structure of claim 2 wherein the R_{mean} is at least about 20 nm.

18. The structure of claim 2 wherein the R_{mean} is at least about 50 nm.

19. The structure of claim 2 wherein the integrated configuration comprises a vertical stack of alternating insulative levels and conductive levels, and wherein the opening extends through the stack.

20. The structure of claim 19 wherein the opening is lined with an insulative liner, and wherein the first and second materials are within the lined opening.