CLAIMS

~~I/we claim,~~

1. A method of forming an assembly, comprising:

forming a first stack of alternating first and second tiers over a conductive structure; the first and second tiers comprising a first material and an insulative second material, respectively;

forming a first opening to extend through the first stack, the first opening having a recess extending under the first stack;

lining a sidewall of the first opening with a first liner material;

converting the first liner material to a first charge-blocking material;

forming sacrificial material within the first opening;

forming a second stack of alternating third and fourth tiers over the first stack and over the sacrificial material; the third and fourth tiers comprising a third material and an insulative fourth material, respectively;

forming a second opening to extend through the second stack to the sacrificial material;

lining sidewalls of the second opening with a second liner material;

converting the second liner material to a second charge-blocking material;

removing the sacrificial material;

forming charge-storage material adjacent the first and second charge-blocking materials;

forming dielectric material adjacent the charge-storage material;

forming channel material adjacent the dielectric material; and

replacing at least some of the first and third materials with one or more conductive materials.

2. The method of claim 1 wherein the sacrificial material includes tensile-stress-material.

3. The method of claim 2 wherein the tensile-stress-material fills at least about 90% of a volume of the first opening.

~~4. The method of claim 2 wherein the tensile-stress-material fills about 100% of a volume of the first opening.~~

4~~5~~. The method of claim 2 wherein the tensile-stress-material comprises one or more high-k oxides.

5~~6~~. The method of claim 2 wherein the tensile-stress-material comprises one or more of aluminum oxide, hafnium oxide and zirconium oxide.

6~~7~~. The method of claim 2 wherein the tensile-stress-material comprises aluminum oxide.

7~~8~~. The method of claim 6~~7~~ further comprising forming a layer of capping material over the aluminum oxide.

8~~9~~. The method of claim 7~~8~~ wherein the capping material comprises a silicate glass.

9~~10~~. The method of claim 8~~9~~ wherein the capping material comprises one or more of borophosphosilicate glass, phosphosilicate glass and fluorosilicate glass.

10~~11~~. The method of claim 2 wherein the tensile-stress-material comprises tungsten.

11~~12~~. The method of claim 1 wherein the first and second liner materials are a same composition as one another.

12~~13~~. The method of claim 11~~12~~ wherein the first and second liner materials comprise silicon nitride.

13~~14~~. The method of claim 12~~13~~ wherein the first and second charge-blocking materials comprise SiON, where the chemical formula indicates primary constituents rather than a specific stoichiometry.

1415. The method of claim 1 wherein the first and second charge-blocking materials join to one another at a detectable location.

1516. The method of claim 1 wherein the first and third materials are a same composition as one another.

1617. The method of claim 1 wherein the insulative second material and the insulative fourth material are a same composition as one another.

17. The method of claim 1 wherein the recess exposes an upper surface of the conductive structure.

18. The method of claim 1 wherein the removing of the sacrificial material comprises forming a second recess under the first stack.

19. The method of claim 1 wherein the recess exists during the lining of the sidewall of the first opening.

20. The method of claim 1 wherein the forming of the channel material entirely fills the recess with channel material.

2118. A method of forming an assembly, comprising:

forming a first stack of alternating first and second tiers over a conductive structure;

forming a first opening to extend through the first stack and to an upper surface of the conductive structure;

lining a periphery of the first opening with a first liner material, the first liner material being along sidewalls of the first opening and being along an upper surface of the conductive structure;

chemically altering the first liner material to convert the first liner material to a first charge-blocking material;

forming sacrificial material within the first opening and along the first charge-blocking material;

forming a second stack of alternating third and fourth tiers over the first stack and over the sacrificial material;

forming a second opening to extend through the second stack to the sacrificial material;

lining sidewalls of the second opening with a second liner material;

chemically altering the second liner material to convert the second liner material to a second charge-blocking material;

removing the sacrificial material;

after removing the sacrificial material, forming charge-storage material along the first and second charge-blocking materials;

forming dielectric material along the charge-storage material;

punching through only the three materials including the dielectric material, the charge-storage material, and the first charge-blocking material along the upper surface of the conductive structure;

after punching through only the three materials including the first charge-blocking material, forming channel material along the dielectric material and electrically coupled with the conductive structure; and

forming one or more conductive materials within the first and third tiers.

2219. The method of claim 2118 wherein the chemical altering of the first and second liner materials comprises oxidation of the first and second liner materials.

2320. The method of claim 2118 wherein the first and second liner materials comprise a same composition as one another.

2421. The method of claim 2320 wherein the first and second liner materials comprise silicon nitride.

~~22. The method of claim 18 wherein the first and second liner materials comprise a different composition relative to one another.~~

25~~23~~. The method of claim 21~~18~~ wherein the first and second charge-blocking materials comprise SiON, where the chemical formula indicates primary constituents rather than a specific stoichiometry.

26~~24~~. The method of claim 21~~18~~ wherein the first and second charge-blocking materials join to one another along a detectable interface.

27~~25~~. The method of claim 21~~18~~ wherein the first opening has lateral regions that extend to under the first stack; and wherein the charge-storage material, dielectric material and channel material extend into said lateral regions.

28. The method of claim 21 wherein the first opening has lateral regions that extend to under the first stack, and wherein the channel material fills the lateral regions.

29. The method of claim 21 wherein the conductive structure is formed before the first opening.

30. The method of claim 21 wherein the first liner material lines the upper surface of the conductive structure that was exposed during the forming of the first opening.

~~26. An integrated assembly, comprising:~~

~~a first deck having first memory cells arranged in first tiers disposed one atop another;~~

~~a second deck over the first deck; the second deck having second memory cells arranged in second tiers disposed one atop another;~~

~~a charge-blocking structure extending along the first and second decks; the charge-blocking structure having a first region along the first deck and a second region along the second deck, and having a detectable location where the first region joins to the second region; and~~

~~a pillar passing through the first and second decks and being adjacent the charge-blocking structure; the pillar comprising a charge-storage~~

material adjacent the charge-blocking structure, a dielectric material adjacent the charge-storage material, and a channel material adjacent the dielectric material.

27. The integrated assembly of claim 26 wherein the first and second regions of the charge-blocking structure comprise a same composition as one another and comprise different lateral thicknesses relative to one another.

28. The integrated assembly of claim 27 wherein the lateral thicknesses of the first and second regions of the charge-blocking structure are within a range of from about 45Å to about 60Å.

29. The integrated assembly of claim 26 wherein the first and second regions of the charge-blocking structure comprise different compositions relative to one another.

30. The integrated assembly of claim 26 wherein the first and second regions of the charge-blocking structure comprise SiON, where the chemical formula indicates primary constituents rather than a specific stoichiometry.

31. The integrated assembly of claim 26 wherein:

the first deck is over a conductive structure;

the channel material is electrically coupled with the conductive structure;

recesses are between the first deck and the conductive structure; and

the charge-storage material, dielectric material and channel material of the conductive pillars extend into said recesses.

32. The integrated assembly of claim 31 wherein the conductive structure comprises conductively-doped silicon, and wherein the channel material is directly against the conductively-doped silicon of the conductive structure.

~~33. The integrated assembly of claim 26 wherein the charge-storage material comprises silicon nitrid~~

31. A method of forming an assembly, comprising:

forming a first stack of alternating first and second tiers over a conductive structure;

forming a first opening to extend through the first stack and to an upper surface of the conductive structure;

lining a periphery of the first opening with a first liner material, the first liner material being along sidewalls of the first opening and being along an upper surface of the conductive structure;

chemically altering the first liner material to convert the first liner material to a first charge-blocking material;

forming sacrificial material within the first opening and along the first charge-blocking material;

forming a second stack of alternating third and fourth tiers over the first stack and over the sacrificial material;

forming a second opening to extend through the second stack to the sacrificial material;

lining sidewalls of the second opening with a second liner material;

chemically altering the second liner material to convert the second liner material to a second charge-blocking material;

removing the sacrificial material;

after removing the sacrificial material, forming charge-storage material along the first and second charge-blocking materials;

forming dielectric material along the charge-storage material;

punching through the first charge-blocking material along the upper surface of the conductive structure;

after punching through the first charge-blocking material, forming channel material along the dielectric material and electrically coupled with the conductive structure; and

forming one or more conductive materials within the first and third tiers;

wherein the sacrificial material includes tensile-stress-material;

wherein the tensile-stress-material comprises aluminum oxide;

forming a layer of capping material over the aluminum oxide; and

wherein the capping material comprises a silicate glass.

32. The method of claim 31 wherein the capping material comprises one or more of borophosphosilicate glass, phosphosilicate glass and fluorosilicate glass.