

CLAIMS

Claim 1: A construction, comprising:

a first memory array deck;

a second memory array deck over the first memory array deck;

wherein the first and second memory array decks comprise phase change memory, and wherein the second memory array deck differs from the first memory array deck in one or more operating characteristics; and

wherein:

memory cells of the first memory array deck are laterally spaced from one another by first dielectric regions along a cross-section;

memory cells of the second memory array deck are laterally spaced from one another by second dielectric regions along the cross-section; and

the first dielectric regions differ from the second dielectric regions in one or more structural parameters; with said structural parameters including different materials and/or different thicknesses of materials.

Claim 2: The construction of claim 1 wherein:

the first dielectric regions comprise first insulative material liners along sidewalls of memory cells;

the second dielectric regions comprise second insulative material liners along sidewalls of memory cells; and

the first insulative material liners are different thicknesses than the second insulative material liners.

Claim 3: The construction of claim 1 wherein:

the first dielectric regions comprise first insulative material liners along sidewalls of memory cells;

the second dielectric regions comprise second insulative material liners along sidewalls of memory cells; and

the first insulative material liners are different compositions than the second insulative material liners.

Claim 4: The construction of claim 1 wherein:

the first dielectric regions comprise first insulative material liners along sidewalls of memory cells;

the first dielectric regions comprise a first insulator between the first insulative material liners;

the second dielectric regions comprise second insulative material liners along sidewalls of memory cells;

the second dielectric regions comprise a second insulator between the second insulative material liners; and

wherein the second insulator is a different composition relative to the first insulator.

Claim 5: The construction of claim 4 wherein:

the first insulator is solid and/or semisolid; and

the second insulator is gas.

Claim 6: The construction of claim 4 wherein:

the first and second insulative material liners comprising silicon nitride;

the first insulator comprises silicon dioxide; and

the second insulator is gas.

Claim 7: The construction of claim 4 wherein:

the first and second insulative material liners comprising silicon nitride;

the first insulator comprises silicon dioxide; and

the second insulator is a vacuum region.

Claim 8: A construction, comprising:

a first memory array deck;

a second memory array deck over the first memory array deck;

wherein the second memory array deck differs from the first memory array deck in one or more structural parameters; with said structural parameters including different materials and/or different thicknesses of materials; and

wherein:

first memory cells of the first memory array deck are laterally spaced from one another by first dielectric regions along a cross-section;

second memory cells of the second memory array deck are laterally spaced from one another by second dielectric regions along the cross-section; and

the first dielectric regions differ from the second dielectric regions in said one or more structural parameters.

Claim 9: The construction of claim 8 wherein:

the first dielectric regions comprise first insulative material liners along sidewalls of the first memory cells;

the second dielectric regions comprise second insulative material liners along sidewalls of the second memory cells; and

the first insulative material liners are different thicknesses than the second insulative material liners.

Claim 10: The construction of claim 8 wherein:

the first dielectric regions comprise first insulative material liners along sidewalls of the first memory cells;

the second dielectric regions comprise second insulative material liners along sidewalls of the second memory cells; and

the first insulative material liners are different compositions than the second insulative material liners.

Claim 11: The construction of claim 8 wherein:

the first dielectric regions comprise first insulative material liners along sidewalls of the first memory cells;

the first dielectric regions comprise a first insulator between the first insulative material liners;

the second dielectric regions comprise second insulative material liners along sidewalls of the second memory cells;

the second dielectric regions comprise a second insulator between the second insulative material liners; and

wherein the second insulator is a different composition relative to the first insulator.

Claim 12: A construction, comprising:

a first series of access/sense lines extending along a first direction;

a second series of access/sense lines over the first series of access/sense lines and extending along a second direction which crosses the first direction;

a third series of access/sense lines over the second series of access/sense lines and extending along the first direction;

first memory cells between the first and second series of access/sense lines, the first memory cells being arranged in a first memory array deck and comprising first phase change material;

second memory cells between the second and third series of access/sense lines, the second memory cells being arranged in a second memory array deck and comprising second phase change material;

wherein the second memory array deck differs from the first memory array deck in one or more operating characteristics; and

wherein:

the first memory cells are laterally spaced from one another by first dielectric regions along a cross-section;

the second memory cells are laterally spaced from one another by second dielectric regions along the cross-section; and

the first dielectric regions differ from the second dielectric regions in one or more structural parameters with said structural parameters including different materials and/or different thicknesses of materials.

Claim 13: The construction of claim 12 wherein:

the first dielectric regions comprise first insulative material liners along sidewalls of the first memory cells;

the second dielectric regions comprise second insulative material liners along sidewalls of the second memory cells; and

the first insulative material liners are different thicknesses than the second insulative material liners and/or are different compositions than the second insulative material liners.

Claim 14: The construction of claim 12 wherein:

the first dielectric regions comprise first insulative material liners along sidewalls of the first memory cells;

the first dielectric regions comprise a first insulator between the first insulative material liners;

the second dielectric regions comprise second insulative material liners along sidewalls of the second memory cells;

the second dielectric regions comprise a second insulator between the second insulative material liners; and

wherein the second insulator is a different composition relative to the first insulator.