CLAIMS

1. A memory cell, comprising:

a conductive gate; the conductive gate including at least three different materials; said at least three different materials including a first material, a second material directly adjacent the first material and compositionally different than the first material, and a third material directly adjacent the second material and compositionally different than each of the first and second materials; the first and third materials comprising metal and being electrically conductive, the second material being electrically insulative and either sufficiently thin or sufficiently electrically leaky to allow the conductive gate to be electrically conductive, and wherein the first material has an outer periphery, and the second material extends around the periphery of the first material, the second material has an outer periphery, and the third material extends around the periphery of the second material;

a charge-blocking region adjacent the conductive gate;

a charge-storage region adjacent the charge-blocking region;

tunneling material adjacent the charge-storage region; and

channel material adjacent the tunneling material, the tunneling material being between the channel material and the charge-storage region.

2. The memory cell of claim 1 wherein the first material comprises one or more of Co, Mo, Ni, Ru and W.

3. The memory cell of claim 1 wherein the first material consists of one or more of Co, Mo, Ni, Ru and W.

4. The memory cell of claim 1 wherein the second material comprises one or more compositions selected from the group consisting of metal nitrides, metal carbides, metal borides, metal oxides and metal carbonitrides.

5. The memory cell of claim 1 wherein the second material comprises one or more of AlO, CeO, HfO, IrO, NiO, RuO, SiN, SiO, TaO, TiN, TiO, WN and ZrO; where the formulas indicate primary constituents rather than specific stoichiometries.

6. The memory cell of claim 1 wherein the second material consists of one or more of AlO, CeO, HfO, IrO, NiO, RuO, SiN, SiO, TaO, TiN, TiO, WN and ZrO; where the formulas indicate primary constituents rather than specific stoichiometries.

7. The memory cell of claim 1 wherein the second material is continuous.

8. The memory cell of claim 1 wherein the second material is electrically conductive.

9. The memory cell of claim 1 wherein the third material comprises one or more compositions selected from the group consisting of metal nitrides and metal silicon nitrides.

10. The memory cell of claim 1 wherein the third material has a work function of at least about 4.3 eV at about 20°C.

11. The memory cell of claim 1 wherein the third material comprises one or more of MoN, MoSiN, TiN, TiSiN, WN and WSiN; where the formulas indicate primary constituents rather than specific stoichiometries.

12. The memory cell of claim 1 wherein the third material consists of one or more of MoN, MoSiN, TiN, TiSiN, WN and WSiN; where the formulas indicate primary constituents rather than specific stoichiometries.