CLAIMS

1. A polishing composition comprising an abrasive and one or more Co complexors, wherein

the polishing composition has pH of 9 or more, and

the Co complexor comprises at least one selected from a group of 2-Aminoethylphosphonic acid (AEPn), Dimethyl methylphosphonate (DMMP), Amino tris(methylene phosphonic acid) (ATMP), Tetramethylenediamine tetra(methylene phosphonic acid) (TDTMP), Hexamethylenediamine tetra(methylene phosphonic acid) (HDTMP), N-(phosphonomethyl)iminodiacetic acid, 2-carboxyethyl phosphonic acid (PMIDA), 2-hydroxyphosphonoacetic acid (HPAA), N,N-bis(phosphonomethyl)glycine (glyphosine) (PMG), and Iminodimethylenephosphonic acid (IDMP) or a salt thereof.

2. The polishing composition of claim 1 further comprises ammonia and bicarbonate.

3. The polishing composition of claim 1, wherein the complexor is present in an amount by weight of the polishing composition of less than or equal to 5%.

4. The polishing composition of claim 1, wherein the abrasive is silica, alumina, or ceria.

5. The polishing composition of claim 1, further comprising one or more of an oxidizing agent, a surfactant, and a corrosion inhibitor.

6. The polishing composition of claim 5, wherein the oxidizing agent is present in an amount by weight of the polishing composition of 0.1-4%.

7. The polishing composition of claim 5, wherein the oxidizing agent is H_2O_2.

8. The polishing composition of claim 5, wherein the corrosion inhibitor is present in an amount by weight of the polishing composition of 0.1-0.4%.

9. The polishing composition of claim 5, wherein the corrosion inhibitor is benzotriazole (BTA).

10. The polishing composition of claim 5, wherein the surfactant is present in an amount by weight of the polishing composition of 0.01-2%.

11. The polishing composition of claim 5, wherein the surfactant comprises a compound of formula (II):

R^1-O-$[CH_2CH(CH_3)O]_m$-$[CH_2CH_2O]_n$-H (II)

wherein R^1 is C_1-C_{10} alkyl, m and n are chosen such that in the compound of formula II, oxyethylene and oxypropylene groups are present in a 1:1 amount by weight to about 3:1 amount by weight.

12. A method of polishing, the method comprising polishing Co and optionally Cu with a composition of any one of claims 1-11.

13. The method of claim 12, wherein the removal rate of Co is 200 angstrom/min to 2400 angstrom/min.

14. The method of claim 13, wherein the removal rate of Cu is less than 100 angstrom/min, or less than 80 angstrom/min.

15. The method of claim 14, wherein the Co : Cu removal selectivity is 5 or more.