It is claimed:

1. An stable additive composition for modifying cementitious compositions, comprising:

a) at least one water-dispersible defoamer comprising polyalkylene oxide;

b) at least one polycarboxylate cement dispersant having polyethylene oxide groups, polypropylene oxide groups, or mixture thereof; and

c) colloidal nano-particles having a Z-average size of 8-150 nanometers and being selected from the group consisting of silica, alumina, zinc oxide, tin oxide, cerium oxide, zirconia, and mixtures thereof.

2. The additive composition of claim 1 wherein, in said component (a), the dispersion of said water-dispersible defoamer, at 0.2% based on total weight of aqueous carrier, has a turbidity value larger than 50 NTU.

3. The additive composition of claim 1 wherein, in said component (a), said water-dispersible defoamer is an ethoxylated or propoxylated alcohol, fatty alcohol, alkyl amine, alkyl polyamine, or fatty carboxylic acid.

4. The additive composition of claim 1 wherein, in said component (a), said water-dispersible defoamer has an end group of hydrogen, or C1 to C30 linear or branched, aromatic or aliphatic alkyl.

5. The additive composition of claim 1 wherein, in said component (a), said water-dispersible defoamer can contain random or block ethylene oxide/propylene oxide units, for example, EO-PO-EO triblock, EO-PO diblock and etc.

6. The additive composition of claim 1 wherein said colloidal nano-particles have a Z-average size of 15 -120 nm, more preferably 25-60 nm.

7. The additive composition of claim 1 wherein said colloidal nano-particles are comprised of silica, alumina, or mixture thereof.

8. The additive composition of claim 1 wherein the weight ratio of said component (a) to said component (b) based on solid content is from 1:1000 to **1:2**; and the weight ratio of said component (a) to said component (c) based on solid content is 1:0.5 to 1:10.

9. The additive composition of claim 1 wherein the weight ratio of said component (a) to said component (b) based on solid content is from 1:200 to 1:4; and the weight ratio of said component (a) to said component (c) based on solid content is 1:1.25 to 1:3.

10. The additive composition of claim 1 further comprising water sufficient for said components (a) through (c) to form an aqueous solution wherein the concentration of said water-dispersible defoamer of said component (a) is 0.05% to 2.5% based on total weight of said aqueous solution.

11. The additive composition of claim 10 wherein the concentration of said at least one comb polymer polycarboxylate cement dispersant is **1%** to 60% based on weight of said aqueous solution.

12. The additive composition of claim 11 wherein said colloidal nano-particles are mixed with said at least one water-dispersible defoamer prior to addition of said at least one comb polymer polycarboxylate cement dispersant.

13. The additive composition of claim 1 further comprising at least one water-soluble defoamer.

14. The additive composition of claim 1 further comprising inorganic salts.

15. The additive composition of claim 1 wherein said colloidal nano particles are operative to stabilize at least one water dispersible defoamer within an aqueous environment in the presence of the at least one polycarboxylate cement dispersant.

16. Cementitious composition comprising at least one cementitious binder and the additive composition of claim 1.

17. Method for modifying a hydratable cementitious composition comprising: mixing together at least one cementitious binder and the additive composition of claim 1.

18. Method for modifying a hydratable cementitious composition comprising: combining together a hydratable cementitious binder and the additive composition of claim 1.

It is claimed:

1. A stable additive in aqueous carrier composition for modifying cementitious compositions, comprising: water and

a) at least one water-dispersible defoamer comprising polyalkylene oxide, said at least one water-dispersible defoamer having a turbidity value greater than 50 NTU when measured by turbidimeter at 20° C at concentration level of 0.2% based on total weight of the aqueous carrier;

b) at least one polycarboxylate cement dispersant having polyethylene oxide groups, polypropylene oxide groups, or mixture thereof; and

c) colloidal nano-particles having a Z-average size of 8-150 nanometers and being selected from the group consisting of silica, alumina, zinc oxide, tin oxide, cerium oxide, zirconia, and mixtures thereof;

said collidal nano-particles being effect to stabilize the at least one water-dispersible defoamer and the at least one polycarboxylate cement dispersant when combined within the aqueous carrier composition.

2. The additive composition of claim 1 wherein, in said component (a), the at least one water-dispersible defoamer is an ethoxylated or propoxylated alcohol, fatty alcohol, alkyl amine, alkyl polyamine, or fatty carboxylic acid.

3. The additive composition of claim 1 wherein, in said component (a), the at least one water-dispersible defoamer has an end group of hydrogen, or C1 to C30 linear or branched, aromatic or aliphatic alkyl.

4. The additive composition of claim 1 wherein, in said component (a), the at least one water-dispersible defoamer comprises random or block ethylene oxide/propylene oxide units.

5. The additive composition of claim 1 wherein said colloidal nano particles have a Z-average size of 15-120 nm.

6. The additive composition of claim 1 wherein said colloidal nanoparticles are comprised of silica, alumina, or mixture thereof.

7. The additive composition of claim 1 wherein the weight ratio of said at least one water-dispersible defoamer of component (a) to said at least one polycarboxylate cement component (b) based on solid content is from 1:1000 to 1:20; and the weight ratio of said component (a) to said component (c) based on solid content is 1:0.5 to 1:10.

8. The additive composition of claim 1 wherein the weight ratio of said at least one water-dispersible defoamer of component (a) to said at least one polycarboxylate cement dispersant of component (b) based on solid content is from 1:200 to 1:35; and the weight ratio of said component (a) to said component (c) based on solid content is 1:1.25 to 1:3.

9. The additive composition of claim 1 wherein the concentration of said at least one polycarboxylate cement dispersant is 5% to 60% based on weight of said aqueous solution.

10. The additive composition of claim 9 wherein said colloidal nanoparticles are mixed with said at least one water-dispersible defoamer prior to addition of said at least one polycarboxylate cement dispersant.

11. The additive composition of claim 1 further comprising at least one water-soluble defoamer.

12. The additive composition of claim 1 further comprising inorganic salts.

13. Cementitious composition comprising at least one cementitious binder and the additive composition of claim 1.

14. Method for modifying a hydratable cementitious composition comprising: mixing together at least one cementitious binder and the additive composition of claim 1.

15. The stable additive in aqueous carrier composition of claim 6 further comprising an accelerator.

16. The additive composition of claim 4 wherein said ethylene oxide/propylene oxide units are ethylene oxide-propylene oxide-ethylene oxide triblock or ethylene oxide-propylene oxide diblock.

17. The additive composition of claim 5 wherein said collidal nano particles have a Z-average size of 25-60 nm.