WHAT IS CLAIMED IS:

1. A topical minocycline composition comprising porous ceramic calcium particles loaded with a minocycline active agent, wherein the composition is a formulation configured to be applied to a keratinized skin surface location of a mammal and exhibits reduced fluorescence as compared to a control.

2. The topical minocycline composition according to Claim 1, wherein the porous calcium particles are porous calcium phosphate particles.

3. The topical minocycline composition according to Claim 1, wherein the particles have a pore volume ranging from 30 to 85%.

4. The topical minocycline composition according to Claim 3, wherein the particles have a pore size ranging from 2 nm to 100 nm.

5. The topical minocycline composition according to Claim 4, wherein the particles are produced by:

preparing a fluid composition of calcium phosphate crystals;

drying the fluid composition in a manner sufficient to produce precursor particles; and

subjecting the precursor particles to elevated temperatures in a manner sufficient to produce uniform, rigid, spherical nanoporous calcium phosphate particles.

6. The topical minocycline composition according to Claim 1, wherein the formulation is a cream.

7. The topical minocycline composition according to Claim 1, wherein the minocycline is bound to the particles in an amount ranging from 0.01 to 2000 mg minocycline per gram of particles.

8. The topical minocycline composition according to Claim 1, wherein the particles have an average particle diameter of 2 microns or less.

9. The topical minocycline composition according to Claim 1, wherein the minocycline active agent comprises a minocycline salt.

10. The composition according to Claim 1, wherein the particles are described by the molecular formula $Ca_{10}(PO4)_6(OH)_2$.

11. The composition according to Claim 2, wherein the calcium phosphate particles are chemically pure.