

COMPOSITIONS AND METHODS FOR ANTIMICROBIAL METAL NANOPARTICLES

ABSTRACT

5 Embodiments of the invention are directed to a composition having antimicrobial activity comprising particles comprising at least one inorganic copper salt; and at least one functionalizing agent in contact with the particles, the functionalizing agent stabilizing the particle in a carrier such that an antimicrobially effective amount of ions are released into the environment of a microbe. The average size of the particles ranges
10 from about 1000 nm to about 4 nm. Preferred copper salts include copper iodide, copper bromide and copper chloride. Preferred functionalizing agents include amino acids, thiols, hydrophilic polymers, emulsions of hydrophobic polymers and surfactants.

Figure 6 for publication