Claims

1. A method for producing a spherical silver powder having a closed cavity in each particle thereof, said method comprising the steps of:

preparing a water reaction system containing silver ions;

preparing a reducing agent containing solution which contains an aldehyde as a reducing agent; and

depositing silver particles by reduction by mixing the reducing agent containing solution with the water reaction system while causing cavitation in the water reaction system by irradiating the water reaction system with ultrasonic waves.

2. A method for producing a spherical silver powder as set forth in claim 1, wherein said water reaction system containing silver ions is an aqueous solution containing a silver ammonia complex.

3. A method for producing a spherical silver powder as set forth in claim 1, wherein said reducing agent containing solution is a solution containing formaldehyde or acetaldehyde.

4. A method for producing a spherical silver powder as set forth in claim 1, which further comprises steps of

carrying out the solid-liquid separation of said silver particles deposited by reduction;

washing the separated silver particles; and

drying the washed silver particles at a temperature of not higher than 100°C.

5. A spherical silver powder which has a closed cavity in each particle thereof and which has a mean particle size D_{50} of 0.1 to 10 μm when the particle size is obtained by a laser diffraction method.

6. A spherical silver powder as set forth in claim 5, which has a true specific gravity of not greater than 9.8 g/cm^3.

7. A spherical silver powder as set forth in claim 5, wherein the content of each of impurities, except for carbon, nitrogen, oxygen and hydrogen, contained in said spherical silver powder is less than 100 ppm.

8. A conductive paste using a spherical silver powder as set forth in any one of claims 5 through 7, as a conductor.