

**CONDUCTIVE MATERIALS**  
**ABSTRACT OF THE DISCLOSURE**

A material for producing a conductive composition comprising polymer particles, conductive particles, and a liquid medium. The material is in a liquid/dispersion form until it is cured at which time it forms an electrically

5 conductive composition. The composition contains larger sized polymer particles along with smaller metal conductive filler particles such as nanoparticle-sized filler particles. The larger polymer particles create excluded volume in the material matrix and reduce the percolation threshold of the conductive filler particles to provide a conductive material with a

10 reduced volume fraction of electrically conductive filler. The electrical conductivity of the material is further increased after heat treatment which causes the conductive filler particles to sinter together to form a highly conductive network.