IMPROVED METHOD FOR PRODUCING A COPPER LAYER ON A SUBSTRATE IN A FLAT PANEL DISPLAY MANUFACTURING PROCESS

Abstract of the Disclosure

Methods and apparatus for producing a copper layer on substrate in a flat panel display manufacturing process, where the copper is electrodelessly deposited on a substrate to form a copper interconnection layer. A copper solution containing: $CuSO_4$ $5H_2O$ as a copper source, potassium sodium tartrate or trisodium citrate as a complexing agent, glyoxylate, glyoxilic acid or sodium phosphate as a reducing agent, a sulfur organic compound as a stabilizing agent, and a pH adjusting agent, is used to form the copper interconnection layer on the substrate.

Fig. 1