

Electrodeposition Apparatus for Producing Electrodeposited
Copper Foil and Electrodeposited Copper Foil
Produced by Use of the Apparatus
Abstract

An object of the invention is to provide a method for continuously producing electrodeposited copper foil while thiourea-decomposed products remaining in copper electrolyte are removed through activated carbon treatment. Another object is to provide high-resistivity copper foil obtained through the method. To attain the objects, the present invention provides an electrodeposition apparatus including a path for circulating a copper sulfate solution, the path being provided for performing electrolyzing in an electrodeposition cell a composition-adjusted, thiourea-added copper sulfate solution, to thereby produce electrodeposited copper foil; feeding, after completion of electrodeposition, a spent solution discharged from the electrodeposition cell to a copper dissolution tower, to thereby serve as a sulfuric acid solution for dissolving copper and prepare a high-copper-concentration copper sulfate solution; incorporating an additive into the high-copper-concentration copper sulfate solution, to thereby prepare a composition-adjusted copper sulfate solution; and feeding the composition-adjusted copper sulfate solution to the electrodeposition cell, to thereby serve as an electrolyte again; characterized in that, in an upstream position in relation to the copper dissolution tower where the spent solution fed from the electrodeposition cell in which electrodeposition has been completed is introduced, there is provided a filtration means; i.e., a circulation-filtration apparatus which can perform circulation-filtration

treatment for 30 minutes or longer or an ultrafiltration apparatus.

Fig. 2