any one of claims 1 to 8, wherein the compound (e) includes benzoic sulfimide (saccharin) or a salt thereof.

Claim 10

The copper-nickel alloy electroplating bath according to any one of claims 1 to 9, wherein the reaction product (f) between a glycidyl ether and a polyvalent alcohol is a water soluble polymer obtained by a condensation reaction between an epoxy group of the glycidyl ether and a hydroxyl group of the polyvalent alcohol.

Claim 11

The copper-nickel alloy electroplating bath according to any one of claims 1 to 10, wherein the metal complexing agent (b) is selected from the group consisting of monocarboxylic acids, dicarboxylic acids, polycarboxylic acids, oxycarboxylic acids, keto-carboxylic acids, amino acids, aminocarboxylic acids, and salts thereof.

~~Claim 12~~

~~The copper-nickel alloy electroplating bath according to any one of claims 1 to 11, wherein a metal coating to be deposited has a copper/nickel composition ratio of 5/95 to 95/5.~~

Claim ~~13~~12

A method for electroplating a substrate with a copper-nickel alloy, the substrate being selected from the group consisting of metal substrates made of copper, iron, nickel, silver, gold, and alloys thereof, and a glass substrate, a ceramic substrate, and a plastic substrate whose surfaces are modified with any of the metals and alloys,

the method comprising

electroplating by using the copper-nickel alloy electroplating bath according to any one of claims 1 to ~~12~~11.