

ABSTRACT

Novel Compound and Use Thereof

Provided is a copper plating technique that enables the filling of high aspect-ratio via-holes and through-holes in semiconductor substrates such as silicon substrates, organic material substrates or ceramic substrates. The disclosed technique involves a tertiary amine compound, which is obtained by reacting a heterocyclic compound with the epoxy group of a glycidyl ether group of a compound that has three or more glycidyl ether groups, and a quaternary amine compound thereof, as well as a copper plating additive, a copper plating bath, and a copper plating method employing the compounds.

Fig. 1