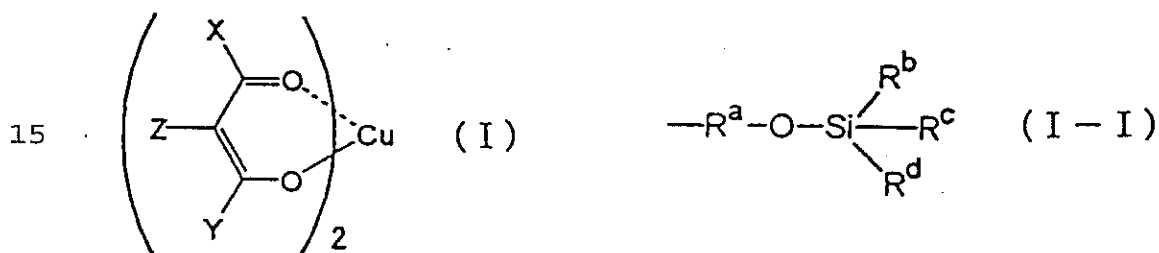


ABSTRACT

5

Copper-containing thin films can be industrially advantageously formed by chemical vapor deposition using as the copper source a divalent copper complex bearing β -diketonato ligands having silyl ether linkage. A representative example of the divalent copper complex is represented by the formula (I):



wherein Z is hydrogen or alkyl; X is a group represented by the formula (I-I), in which R^a is alkylene, and each of R^b , R^c and R^d is alkyl; and Y is an alkyl group or a group represented by the formula (I-I), in which R^a is alkylene, and each of R^b , R^c and R^d is alkyl.