

ABSTRACT

The present invention relates to an electrodeposition composition intended particularly for coating a semiconductor substrate in order to fabricate structures of the "through via" type for the production of interconnects in integrated circuits. According to the invention, the said solution comprises copper ions in a concentration of between 14 and 120 mM and ethylenediamine, the molar ratio between ethylenediamine and copper being between 1.80 and 2.03 and the pH of the electrodeposition solution being between 6.6 and 7.5. The present invention also relates to the use of the said electrodeposition solution for the deposition of a copper seed layer, and to the method for depositing a copper a seed layer with the aid of the electrodeposition solution according to the invention.