

Title (en)

BARRIER LAYER FOR COPPER METALLIZING

Title (de)

BARRIERESCHICHT FÜR KUPFERMETALLISIERUNG

Title (fr)

COUCHE D'ARRET POUR METALLISATION AU CUIVRE

Publication

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Application

EP 98965273 A 19981216

Priority

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- EP 9808255 W 19981216

Abstract (en)

[origin: WO9931722A1] The invention relates to an integrated electric circuit with a number of structure levels in which electrically active elements (20, 30, 40) are located on at least one element structure level, whereby at least one insulation layer (320) is arranged above the element structure level. Electric connection leads (330, 340, 350, 360, 410, 420, 430) are arranged within and/or above the insulation layer (320). At least one part of the connection leads (330, 340, 350, 360, 410, 420, 430) contain copper, and at least one diffusion blocker is arranged underneath said connection leads (330, 340, 350, 360, 410, 420, 430). The diffusion blocker impedes and/or prevents the diffusion of copper. According to the invention, this integrated electric circuit is configured such that the diffusion blocker is constructed as a blocker layer (160) which is interrupted only in the area of the contact holes (170, 180, 190, 200, 210, 220) and/or connection pieces. In addition, the blocker layer (160) is located between the element structure level and the insulation layer (320).

IPC 1-7

H01L 21/285; **H01L 21/768**; **H01L 23/31**; **H01L 23/532**

IPC 8 full level

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