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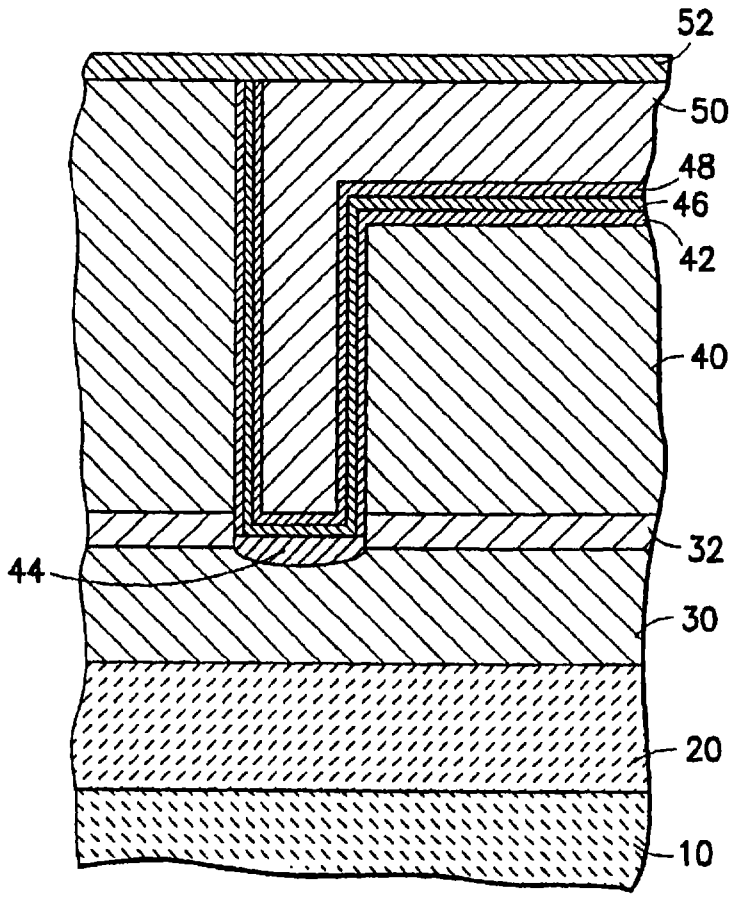
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(54) Title: COPPER VIAS IN LOW-K TECHNOLOGY



(57) Abstract: In integrated circuits having copper interconnect and low-k interlayer dielectrics, a problem of open circuits after heat treatment was discovered and solved by the use of a first liner layer (42) of Ti, followed by a conformal liner layer (46) of CVD TiN, followed in turn by a final liner layer (48) of TA or TaN, thus improving adhesion between the via and the underlying copper layer while reducing the increase in resistance caused by alloying between the Ti and the copper to an acceptable amount.

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