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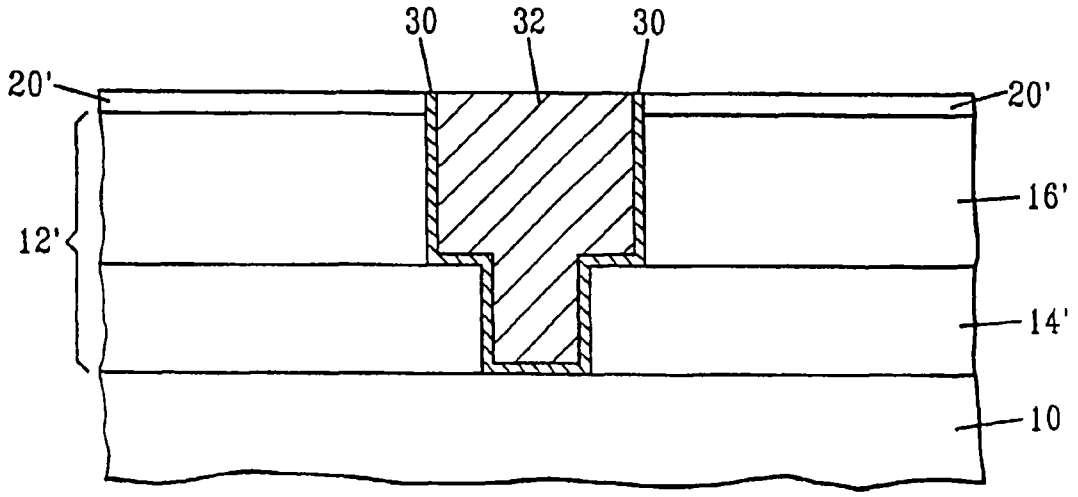
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[Continued on next page]

(54) Title: HYBRID LOW-k INTERCONNECT STRUCTURE COMPRISED OF 2 SPIN-ON DIELECTRIC MATERIALS



(57) Abstract: A metal wiring plus low-k dielectric interconnect structure of the dual damascene-type is provided wherein the conductive metal lines (32) and vias are built into a hybrid low-k dielectric (12') which includes two spun-on dielectrics (14'), (16') that have different atomic compositions and at least one of the two spun-on dielectrics is porous. The two spun-on dielectrics used in forming the inventive hybrid low-k dielectric each have a dielectric constant of about 2.6 or less, preferably each dielectric of the hybrid structure has a k of from about 1.2 to about 2.2. By utilizing the inventive hybrid low-k dielectric excellent control over metal line resistance (trench depth) is obtained, without no added cost. This is achieved without the use of a buried etch stop layer, which if present, would be formed between the two spun-on dielectrics.

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