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(54) Title: METALLIZED VIAS IN GLASS AND SILICON SUBSTRATES, INTERPOSERS, AND METHODS FOR PRODUCTION THEREOF

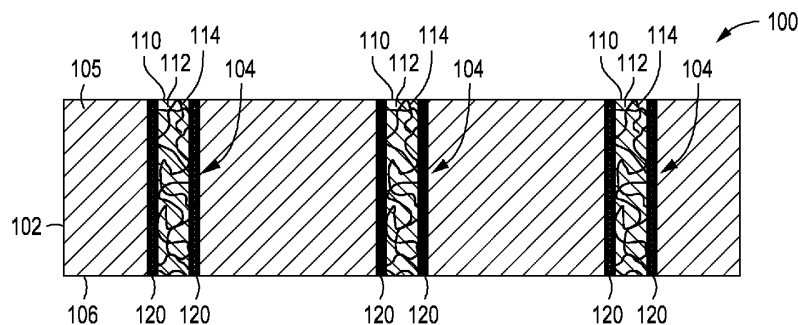


FIG. 3

(57) Abstract: Substrates may be metallized by introducing a via fill material comprising one or more metals into one or more vias terminating in a base substrate and/or extending between a first face and a second face of the base substrate. More particularly, a glass or silicon base substrate may have one or more vias, in which a via fill material is present within the one or more vias. The via fill material comprises a porous matrix material having a void space of about 30% to about 60% and comprising a plurality of electrically conductive particles, which may be optionally bonded together with a cured silicate-reactive matrix material. A conductive network at least partially fills the void space within the porous matrix material, wherein the porous network comprises a plurality of metal nanoparticles that have been consolidated with one another.

[Continued on next page]



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