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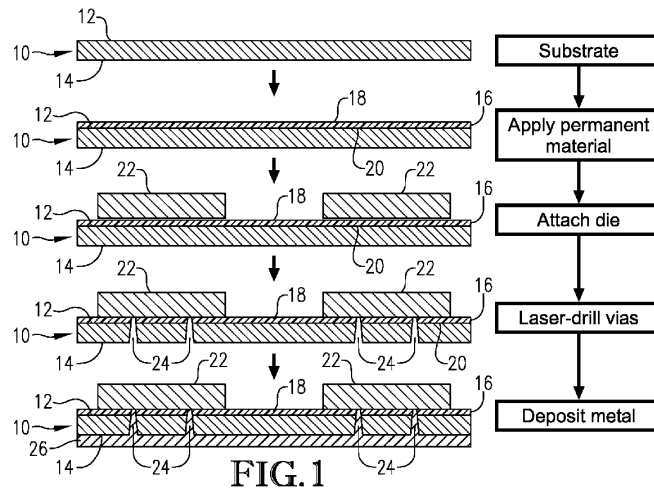
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(54) Title: PERMANENT BONDING AND PATTERNING MATERIAL



(57) Abstract: Methods are disclosed to prepare permanent materials that can be coated onto microelectronic substrates or used for other structural or optical applications. The permanent materials are thermally stable to at least 300°C, cure using a photo or thermal process, exhibit good chemical resistance (including during metal passivation), and have a lifespan of at least 5 years, preferably at least 10 years, in the final device. Advantageously, these materials can also be bonded at room temperature. The materials exhibit no movement or squeeze-out after bonding and adhere to a variety of substrate types. A chip-to-chip, chip-to-wafer, and/or wafer-to-wafer bonding method utilizing this material is also described.

[Continued on next page]

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