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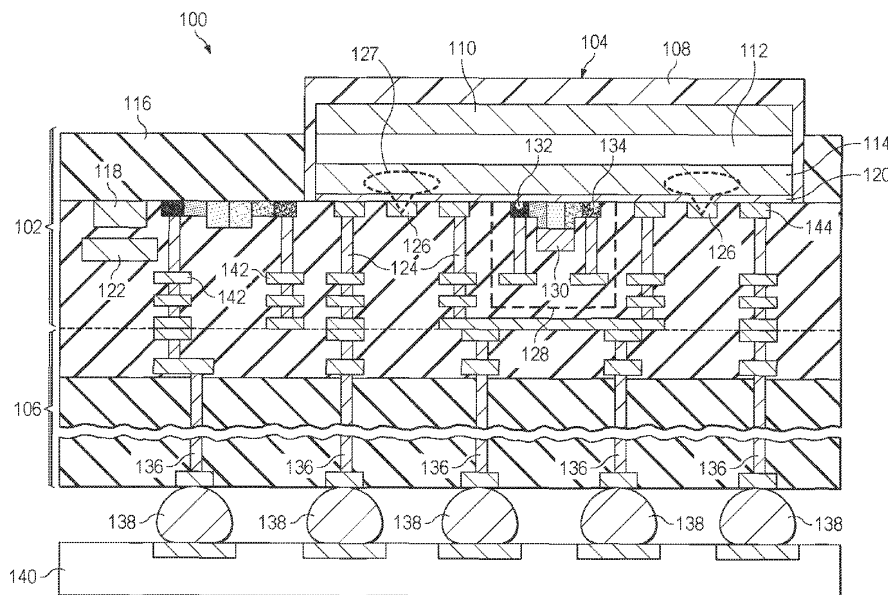


FIG. 1A

(57) Abstract: A method of fabricating a photonics stack includes providing a silicon photonics structure (302, 362) having a silicon substrate (306, 366), an oxide layer (308, 368), and an epitaxial silicon layer (310, 370) with one or more active devices (128, 228). The method also includes providing an interposer structure (106, 206, 304, 364) and attaching the silicon photonics structure and the interposer structure. The method further includes removing the silicon substrate from the silicon photonics structure and removing at least a portion of the oxide layer from the silicon photonics structure. In addition, the method includes disposing a thin film lithium niobate coupon (104, 204, 320, 380) on or within the silicon photonics structure and encapsulating the thin film lithium niobate coupon with an optical material (108, 208, 332, 392).

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