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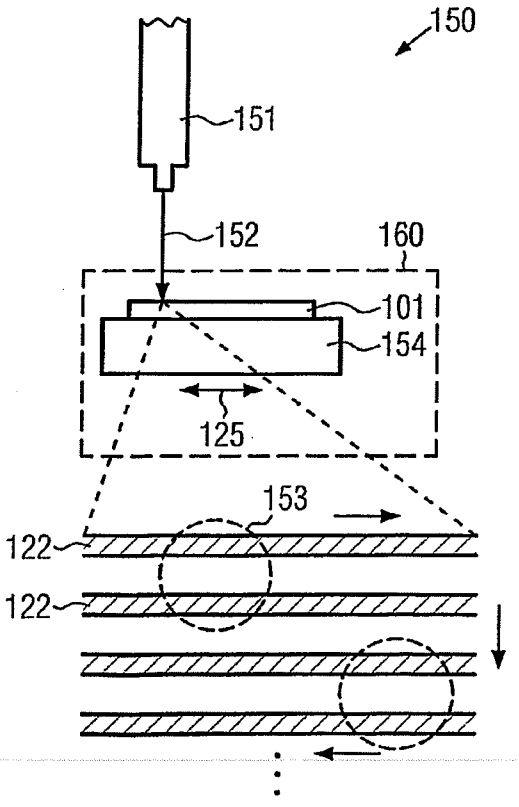
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(54) Title: HEAT TREATMENT FOR FORMING INTERCONNECT STRUCTURES WITH REDUCED ELECTRO AND STRESS MIGRATION AND/OR RESISTIVITY



(57) Abstract: By improving the purity of metal lines (112) and/or the crystalline structure, the overall performance of metal lines, especially of highly scaled copper-based semiconductor devices (100) , may be enhanced. The modification of the crystalline structure of the metal lines may be performed by a heat treatment generating locally restricted heating zones, which are scanned along the length direction of the metal lines (112) , and/or a heat treatment comprising a heating step in a vacuum ambient followed by a heating step in a reducing ambient.

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