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(54) **Title:** STRESSED SOI FET HAVING TENSILE AND COMPRESSIVE DEVICE REGIONS

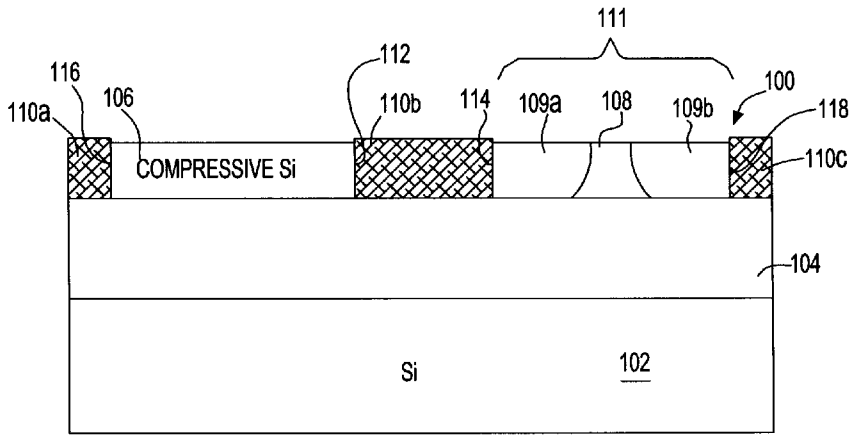


FIG. 2

(57) **Abstract:** A method is provided for fabricating a field effect transistor having a channel region in a semiconductor-insulator layer of an SOI substrate Preferably, in such method, a sacrificial stressed layer is formed to overlie a first portion of an active semiconductor region but not overlie second portion active semiconductor region which shares a common boundary with the first portion After forming trenches in the SOI layer, the SOI substrate is heated with the stressed layer thereon sufficiently to cause the stressed layer to relax, thereby causing the stressed layer to apply a first stress to the first portion and to apply a second stress to the second portion For example, when the first stress is tensile, the second stress is compressive, or the first stress can be compressive when the second stress is tensile.

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