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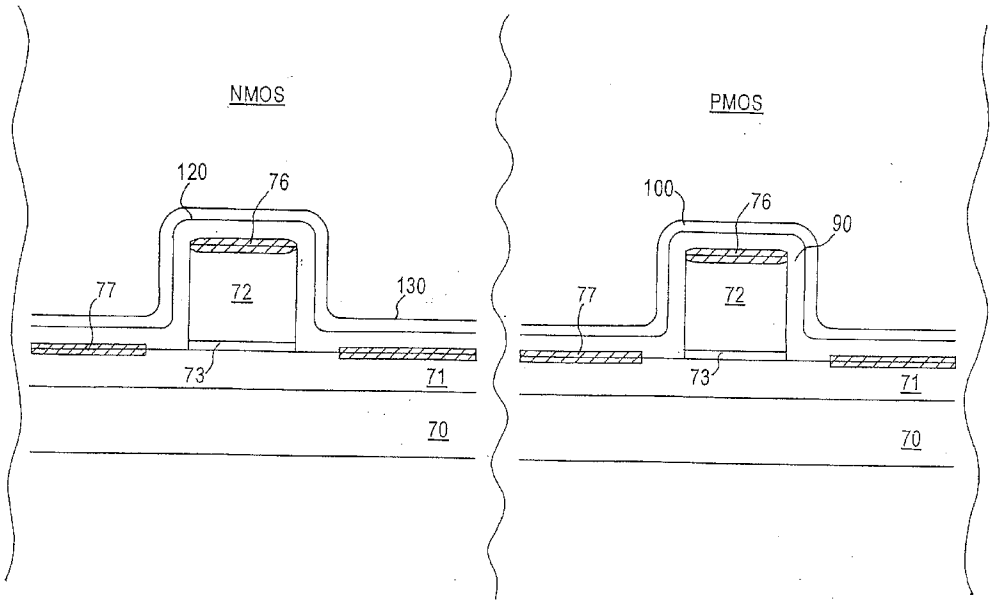
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(54) Title: SEMICONDUCTOR DEVICE BASED ON Si-Ge WITH HIGH STRESS LINER FOR ENHANCED CHANNEL CARRIER MOBILITY



(57) Abstract: The carrier mobility in transistor channel regions of Si-Ge devices is increased by employing a stressed liner. Embodiments include applying a high compressive or tensile stressed film overlying relaxed source/drain regions. Other embodiments include applying a high compressively (90) or high tensilely (120) stressed film, after post silicide spacer removal, over gate electrodes (72) and strained Si source/drain regions (71) of P-channel or N-channel transistors, respectively.

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