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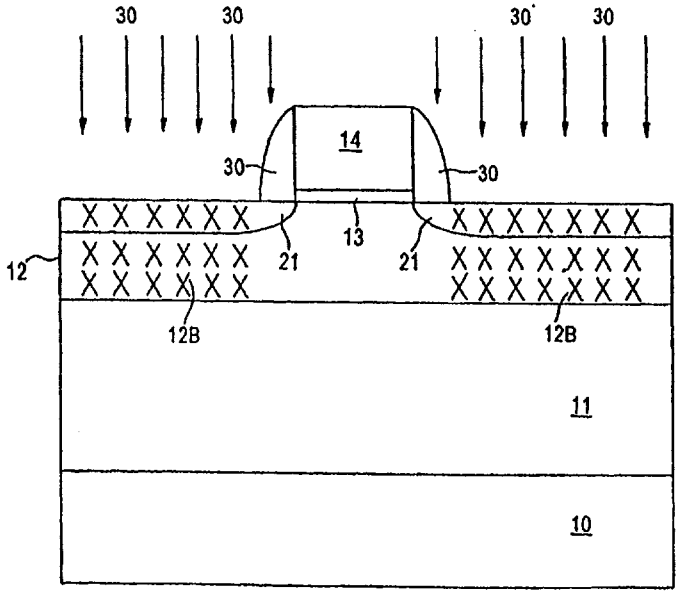
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(54) Title: XE PREAMORPHIZING IMPLANTATION



(57) Abstract: A SOI substrate (101) is preamorphized by ion implanting Xe 15 prior to forming source/drain extensions (21) and source/drain regions (41), thereby virtually eliminating or significantly reducing floating body effects. Other aspects comprise ion implanting a Xe_2^+ into a bulk silicon or SOI substrate to effect preamorphization prior to forming source/drain extensions and regions having shallow junctions with reduced vertical and lateral straggle.

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