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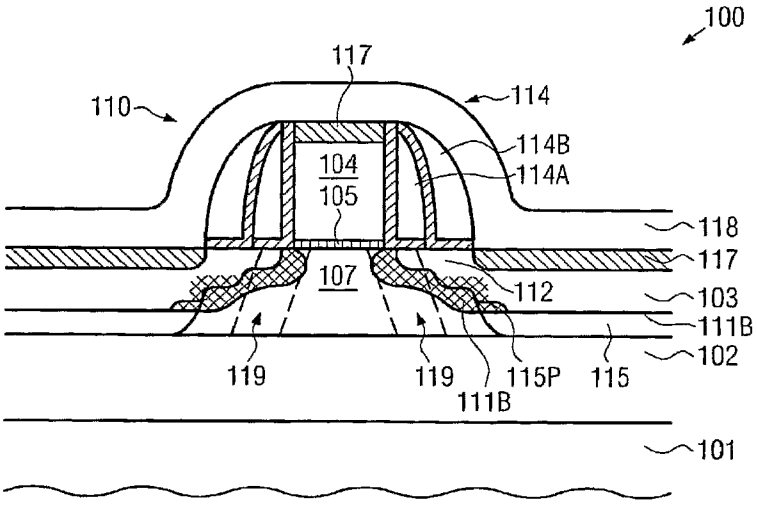
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(54) **Title:** AN SOI TRANSISTOR HAVING A REDUCED BODY POTENTIAL AND A METHOD OF FORMING THE SAME



(57) **Abstract:** By introducing an atomic species (11 IB), such as carbon, fluorine and the like, into the drain and source regions (115, 206), as well as in the body region (107, 207), the junction leakage of SOI transistors (110, 210M) may be significantly increased, thereby providing an enhanced leakage path (119, 219A) for accumulated minority charge carriers. Consequently, fluctuations of the body potential may be significantly reduced, thereby improving the overall performance of advanced SOI devices (100). In particular embodiments, the mechanism may be selectively applied to threshold voltage sensitive device areas, such as static RAM areas (250M).

WO 2007/126807 A1

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