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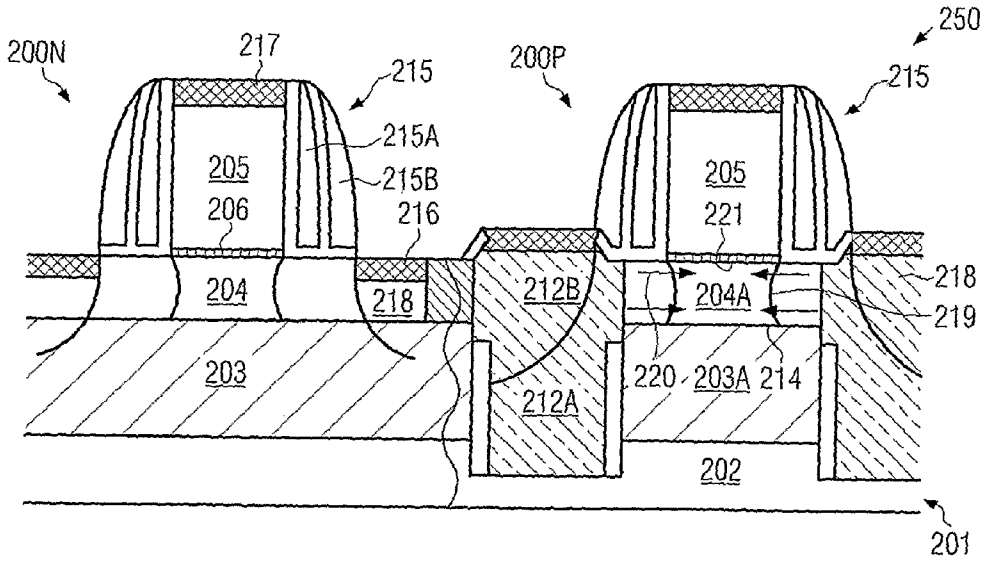
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[Continued on next page]

(54) Title: AN EMBEDDED STRAIN LAYER IN THIN SOI TRANSISTORS AND A METHOD OF FORMING THE SAME



(57) Abstract: By forming a deep recess (111, 211) through the buried insulating layer (103, 203) and re-growing a strained semiconductor material (112, 212), an enhanced strain generation mechanism may be provided in SOI- like transistors (100, 200). Consequently, the strain may also be efficiently created by the embedded strained semiconductor material across the entire active layer, thereby significantly enhancing the performance of transistor devices, in which two channel regions may be defined.

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