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(54) Title: WRAPPED-AROUND CONTACT FOR VERTICAL FIELD EFFECT TRANSISTOR TOP SOURCE-DRAIN

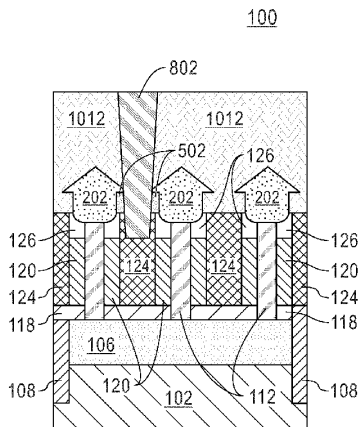


FIG. 10A

(57) Abstract: A semiconductor structure and a method of making the same includes a first recessed region in a semiconductor structure, the first recessed region defining a first opening with a first positive tapering profile, as at least part of the first positive tapering profile, widening the first opening in a direction towards a top source/drain region of the semiconductor structure at a first tapering angle, and a top source/drain contact within the first opening, the top source/drain contact surrounding a surface of the top source/drain region. The semiconductor structure further includes a protective liner located at an interface between a bottom portion of the top source/drain region and the substrate, a top spacer adjacent to the top source/drain region and a dielectric material between two consecutive top source/drain regions, the protective liner protects the top source/drain regions during contact patterning.

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