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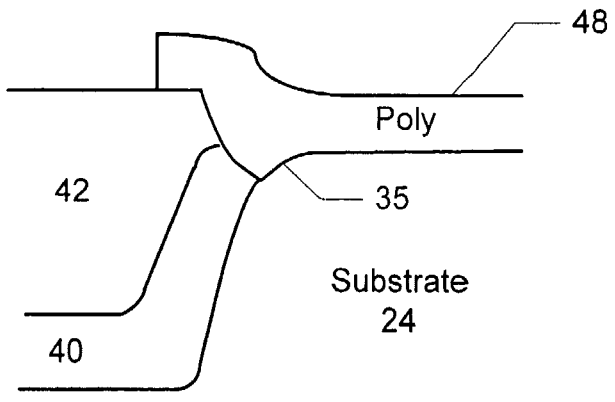
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(54) Title: A SHALLOW TRENCH ISOLATION APPROACH FOR IMPROVED STI CORNER ROUNDING



(57) Abstract: A method for performing shallow trench isolation during semiconductor fabrication that improves trench corner rounding is disclosed. The method includes etching trenches (34) into a silicon substrate (24) between active regions (30), and performing a double liner oxidation process (56) and (60) on the trenches (34). The method further includes performing a double sacrificial oxidation process (72) and (76) on the active regions (30), wherein corners (35) of the trenches (34) are substantially rounded by the four oxidation processes.

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