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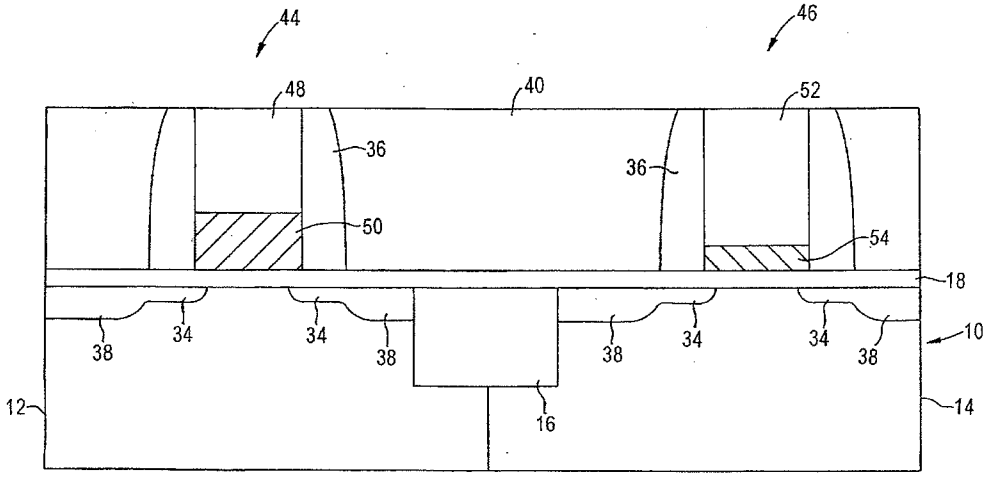
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(54) Title: DUAL-METAL CMOS TRANSISTORS WITH TUNABLE GATE ELECTRODE WORK FUNCTION AND METHOD OF MAKING THE SAME



(57) Abstract: A dual-metal CMOS arrangement and method of making the same provides a substrate (10) and a plurality of NMOS devices (44) and PMOS devices (46) formed on the substrate (10). Each of the plurality of NMOS devices (44) and PMOS devices (46) have gate electrodes. Each NMOS gate electrode includes a first silicide region (50) on the substrate (10) and a first metal region (48) on the first silicide region (50). The first silicide region (50) of the NMOS gate electrode consists of a first silicide (50) having a work function that is close to the conduction band of silicon. Each of the PMOS gate electrodes includes a second silicide region (54) on the substrate and a second metal region (52) on the second silicide region (54). The second silicide region (54) of the PMOS gate electrode consists of a second silicide (54) having a work function that is close to the valence band of silicon.

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