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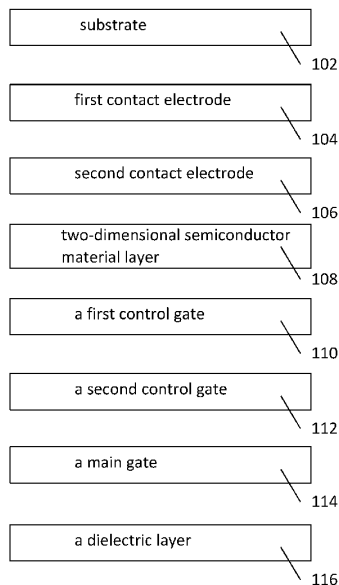
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(54) Title: TRANSISTOR AND METHOD OF FORMING THE SAME

FIG. 1



(57) Abstract: Various embodiments may provide a transistor. The transistor may include a substrate, a first contact electrode and a second contact electrode over the substrate. The transistor may additionally include a two-dimensional semiconductor material layer above the substrate such that the first contact electrode is in contact with a first portion and the second contact electrode is in contact with a second portion of the two-dimensional semiconductor material layer. The transistor may further include a first control gate and a second control gate. The transistor may additionally include a main gate over a third portion of the two-dimensional semiconductor material layer, the third portion between the first portion and the second portion. The transistor may also include a dielectric layer separating the main gate, the first control gate and the second control gate from the two-dimensional semiconductor material layer.

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