A METAL GATE SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD

ABSTRACT

[0031] A method for manufacturing a metal gate includes providing a substrate including a gate electrode located on the substrate. A plurality of layers is formed, including a first layer located on the substrate and the gate electrode and a second layer adjacent the first layer. The layers are etched to form a plurality of adjacent spacers, including a first spacer located on the substrate and adjacent the gate electrode and a second spacer adjacent the first spacer. The first spacer is then etched and a metal layer is formed on the device immediately adjacent to the gate electrode. The metal layer is then reacted with the gate electrode to form a metal gate.

(FIG. 1)