ABSTRACT

A semiconductor device includes; a substrate including an active pattern, a channel pattern and a source/drain pattern on the active pattern, wherein the channel pattern is connected to the source/drain pattern, a gate electrode on the channel pattern, and a gate contact connected to a top surface of the gate electrode, wherein the gate contact includes a capping layer directly contacting the top surface of the gate electrode and a metal layer on the capping layer, wherein the capping layer and the metal layer include the same metal, a concentration of oxygen in the metal layer ranges from between about 2 at% to about 10 at%, and a maximum concentration of oxygen in the capping layer ranges from between about 15 at% to about 30 at%.

FIG. 6