ABSTRACT

Provided is a method of fabricating a semiconductor device including forming a device isolation layer defining active regions on a substrate and forming gate lines intersecting the active regions and buried in the substrate. The forming of the gate lines includes forming a trench crossing the active regions in the substrate, forming a conductive layer filling the trench, and performing a heat treatment process on the conductive layer. The conductive layer includes a nitride of a first metal. Nitrogen atoms in the conductive layer are diffused toward an outer surface and a lower surface of the conductive layer by the heat treatment process.

FIG. 2A