A METHOD FOR ENGINEERING HYBRID ORIENTATION/ MATERIAL SEMICONDUCTOR SUBSTRATE

Abstract

The embodiments provide a structure and a method of manufacturing a semiconductor structure that has a different material in the area where PMOS devices will be formed than in the area where NMOS devices will be formed which is characterized as follows. An embodiment comprises the following steps. A substrate is provided. The substrate has a NMOS area and a PMOS area. We form a NMOS mask over the NMOS area. We form a first semiconductor layer over the PMOS area. We remove the mask. We form a second semiconductor layer over the NMOS area. Then we form an isolation region in the substrate between at least portions of the NMOS and the PMOS areas. We form PMOS devices in the PMOS area and form NMOS devices in the NMOS area.

FIGURE 6