ABSTRACT

SEMICONDUCTOR SYSTEM USING GERMANIUM CONDENSATION

A semiconductor system includes providing a silicon semiconductor substrate. A gate and a plurality of source/drain regions are formed on the silicon semiconductor substrate to form at least one pFET. A silicon-germanium layer is formed over the plurality of source/drain regions. The germanium is condensed from the silicon-germanium layer to form a plurality of source/drains in the plurality of source/drain regions. An interlevel dielectric layer is formed over the gate and the source/drain regions. A plurality of contacts is formed in the interlevel dielectric layer to the gate and the plurality of source/drain regions.

Fig. 7