IMPLANT DAMAGE CONTROL BY IN-SITU C DOPING DURING SIGE EPITAXY FOR DEVICE APPLICATIONS

Abstract

Some example embodiments of the invention comprise methods for and semiconductor structures comprised of: a MOS transistor comprised of source/drain regions, a gate dielectric, a gate electrode, channel region; a carbon doped SiGe region that applies a stress on the channel region whereby the carbon doped SiGe region retains stress/strain on the channel region after subsequent heat processing.

Figure 1D