METHOD FOR FABRICATING SEMICONDUCTOR DEVICES

WITH SHALLOW DIFFUSION REGIONS

ABSTRACT

A method for fabricating a semiconductor device is presented. The method includes providing a substrate and forming a gate stack over the substrate. A first laser processing to form vacancy rich regions within the substrate on opposing sides of the gate stack is performed. The vacancy rich regions have a first depth from a surface of the substrate. A first implant causing end of range defect regions to be formed on opposing sides of the gate stack at a second depth from the surface of the substrate is also carried out, wherein the first depth is proximate to the second depth.

Fig. 6g