Abstract

This article presents the effect of low magnetic field (B < 10 mT) on both Negative Bias Temperature Instability (NBTI) stress and recovery. This effect is a study on commercial power double diffused MOS transistors (VDMOSFET). We show that the degradation is less important when the magnetic field is applied. The dynamic of the degradation change and the relaxation is accelerated. These results can give useful insight for understand the NBTI degradation mechanisms. In addition, it could be exploited to improve the VDMOS devices life time