HTGB and HCI stress induced variability in the nanowire Si MOSFETs

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Abstract

This paper presents the room temperature performance of Si MOSFET nanowires subjected to NBTI (Negative Bias temperature Instability) and HCI (Hot Carrier Injection) stress. The static and dynamic characterizations were carried out with an enormous amount of stress adequate for a trapping / detrapping corresponding to NBTI and HCI. A simulated aging test bench has been designed to evaluate the lifetime of trapping / detrapping loads under resistive stress with an ambient temperature of 300K.

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