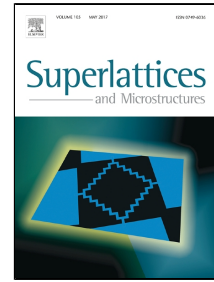


# Accepted Manuscript

Ambipolarity Reduction in DMG Asymmetric Vacuum Dielectric Schottky Barrier GAA MOSFET to Improve Hot Carrier Reliability

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## Highlights:

1. Analytical Model for Novel Asymmetric Vacuum Gate Dielectric SB CGAA MOSFET.
2. Drastic Reduction in Ambipolarity of SB CGAA has achieved.
3. The improved  $I_{\text{off}}$  is reported thus increases  $I_{\text{on}}/I_{\text{off}}$  ratio.
4. The impact of Localized charges ( $N_f$ ) has been minimized in proposed device.
5. Comparative study has been presented among gate material engineering and without gate material engineering devices.

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