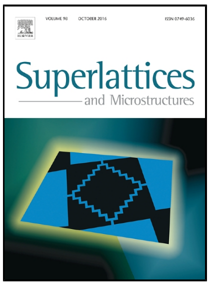

# A new low specific on-resistance H*k*-LDMOS with N-poly diode

Jing Deng, Mingmin Huang, Junji Cheng, Xinjiang Lyu, Xingbi Chen

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# Highlights:

A 700 V LDMOS structure using a high permittivity (H*k*) dielectric is proposed.

The breakdown voltage is remarkably increased by using the H*k* dielectric.

An electron accumulation layer is formed at the surface of the drift region.