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Electronic and structural properties of graphene on 6H-SiC M. WEINERT, University of Wisconsin-Milwaukee, G. SUN, L. LI — We present a first-principles investigation of the electronic and structural properties of one and two graphene sheets on both the Si and C-terminations of 6H-SiC. Of particular interest are properties of the interlayer states associated with the graphene sheets, their spatial and energy distribution, how they are modified by the application of external electric fields, and differences with respect to the polarity of the fields. The calculated results will be compared to the electronic and structural properties observed in scanning tunneling microscopy experiments.

Michael Weinert
University of Wisconsin-Milwaukee

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