

Supplementary Information for “A Next-Generation Transistor Constructed on 2D Materials' Metal-Semiconductor Phase Transition and by Low Supply Voltage”

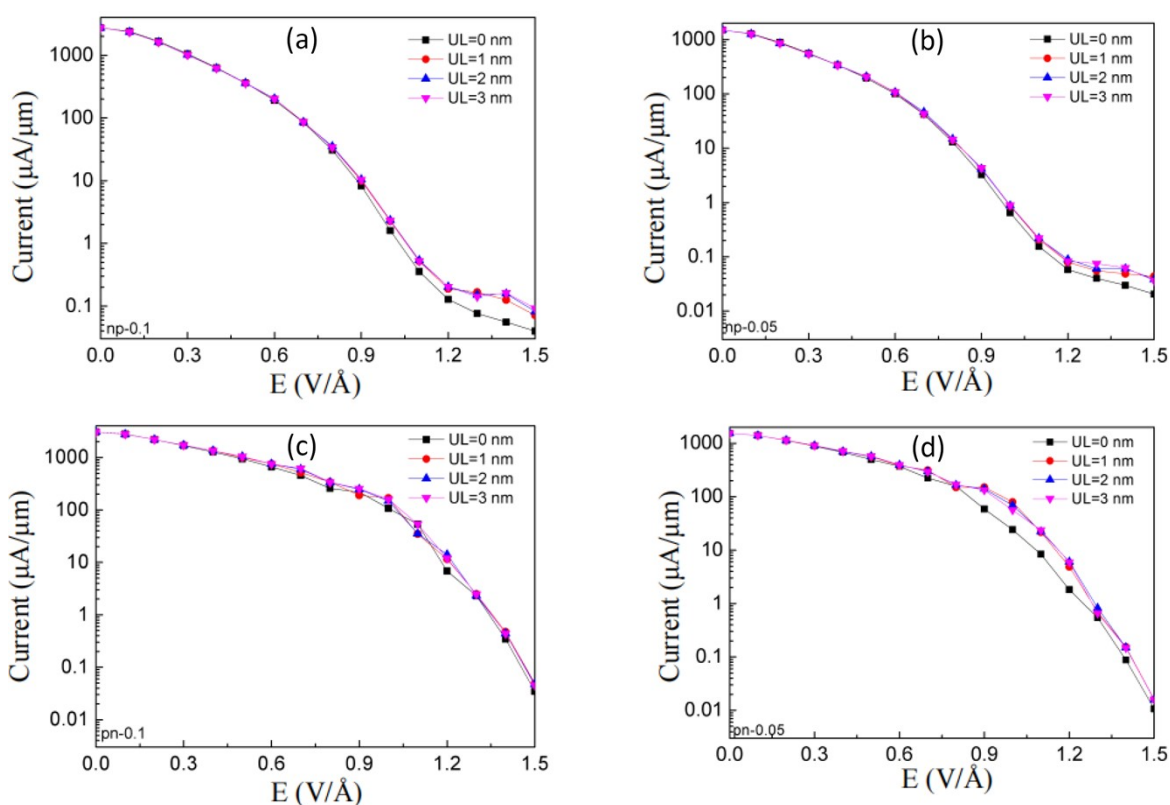
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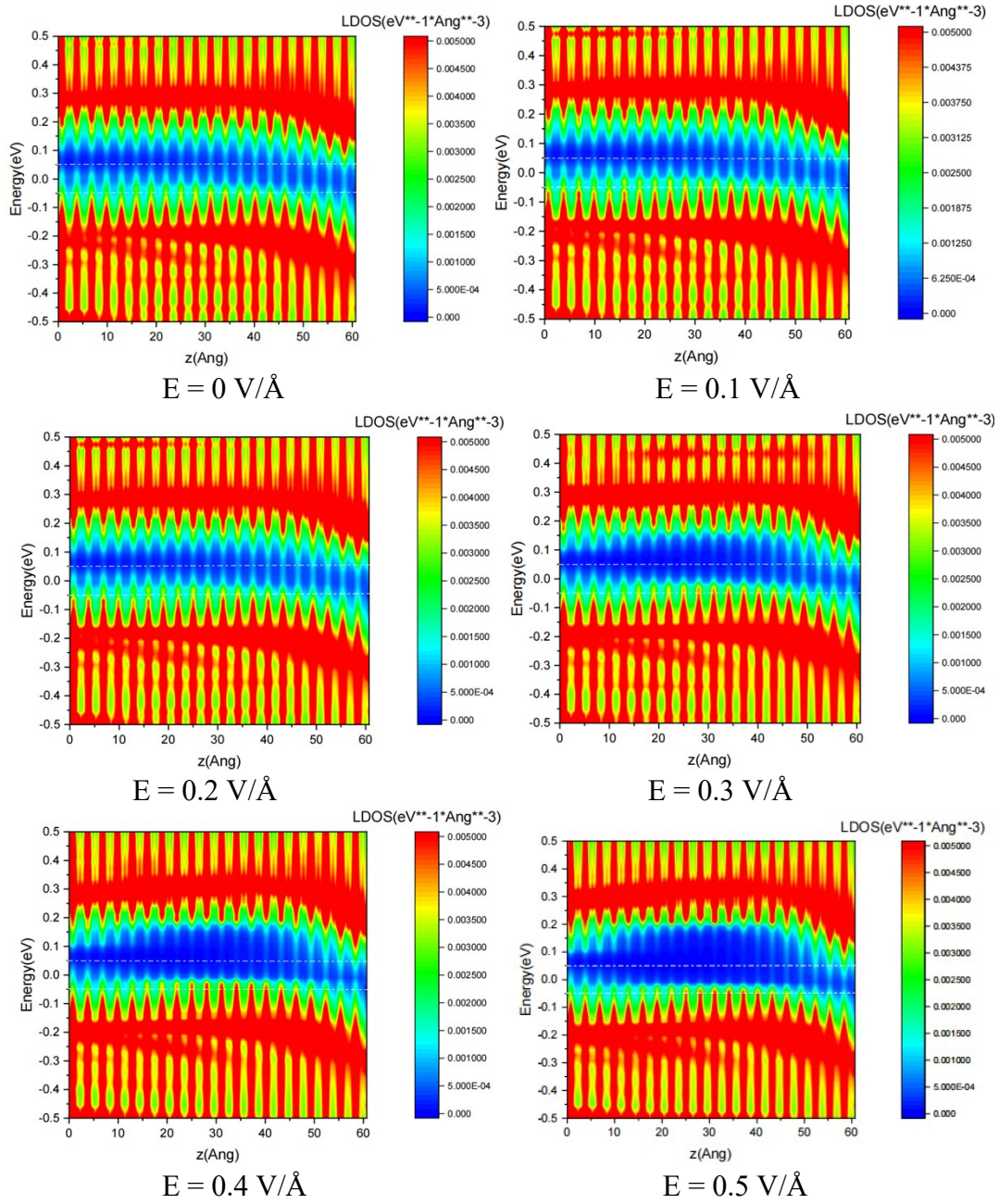
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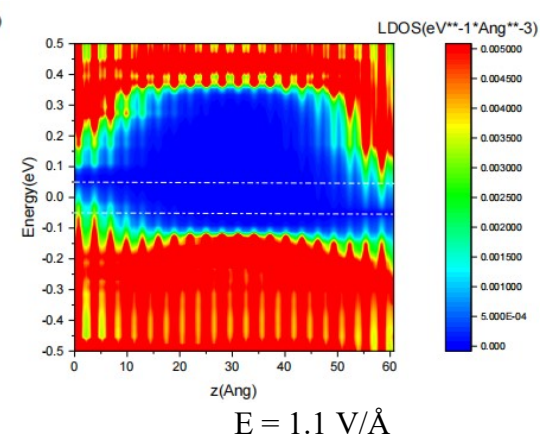
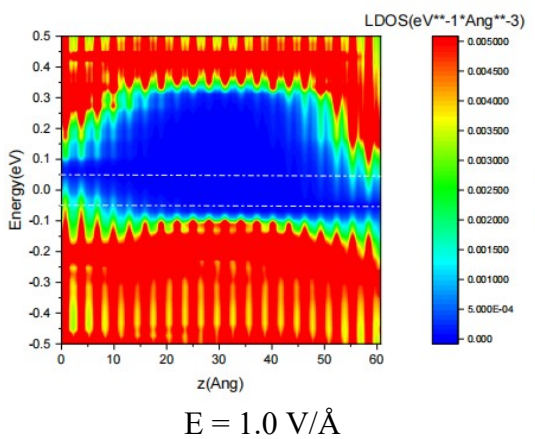
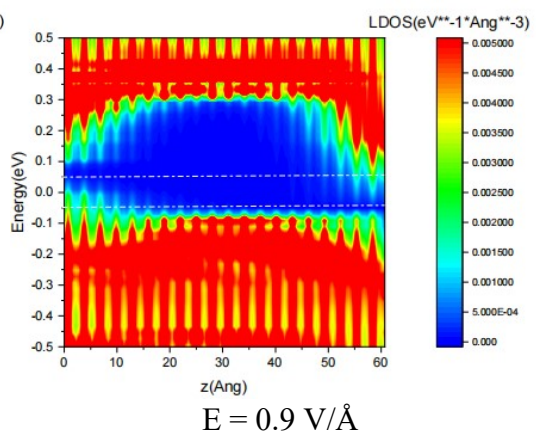
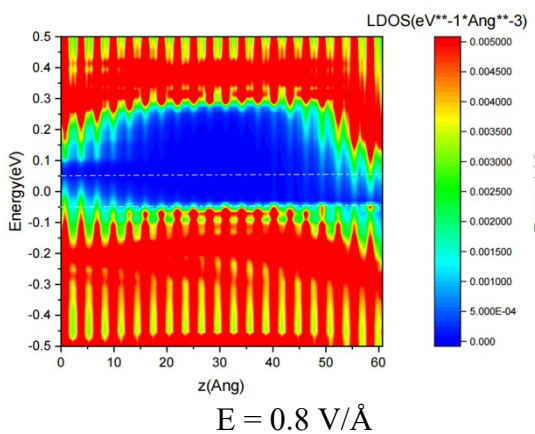
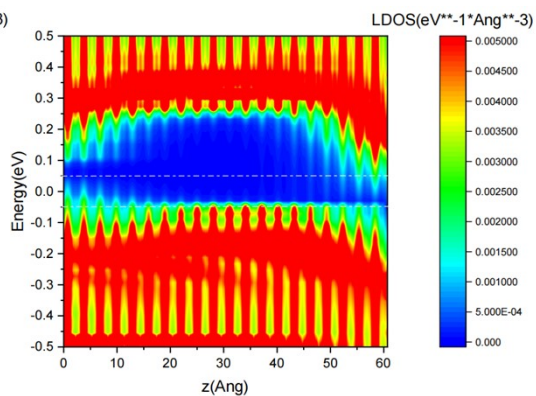
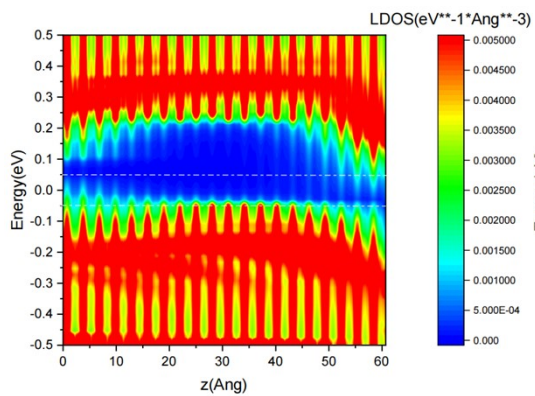
Appendix A1: Transport features of the metal-semiconductor phase transition transistor with different substituted gate-length $L_g=5$ nm, UL= 0, 1, 2 and 3 nm. (a) NP-type, $V_{DD}=0.10$ V; (b) NP-type, $V_{DD}=0.05$ V; (c) PN-type, $V_{DD}=0.10$ V; (d) PN-type, $V_{DD}=0.05$ V.

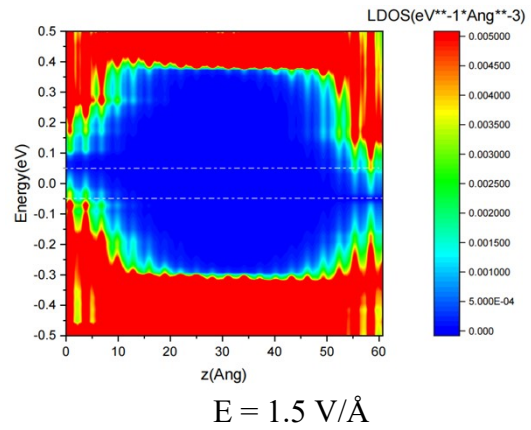
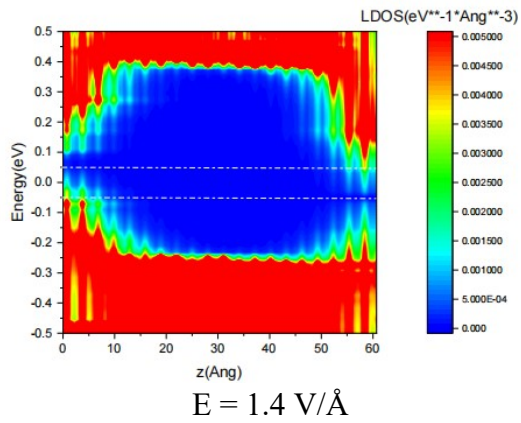
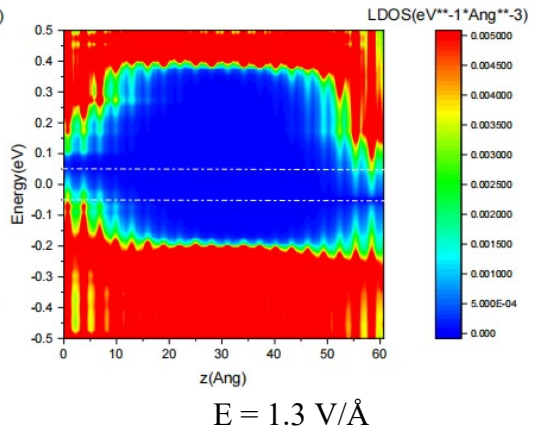
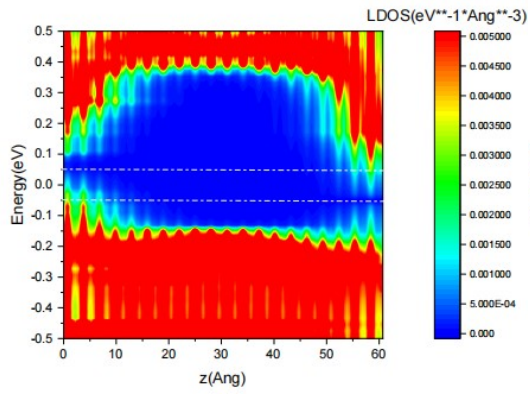


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Appendix A2: The local DOSs of the the metal-semiconductor phase transition transistor (PN-type) under the external electric field for the high-performance device applications.







Appendix A3: The local DOSs of the the metal-semiconductor phase transition transistor (NP-type) under the external electric field for the high-performance device applications.

