Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supplementary Information: Journal of Materials Chemistry C: A novel electrically controllable volatile memory device based on few-layer black phosphorus

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In this supplementary material, we will show further transport properties details of our proposed model.

Figure 1 presents the LDOS at the Fermi level versus Z direction when different vertical gates are applied. It is clear that the LDOS mainly localizes in the topmost or bottom layers and becomes larger as the gate voltage increases.

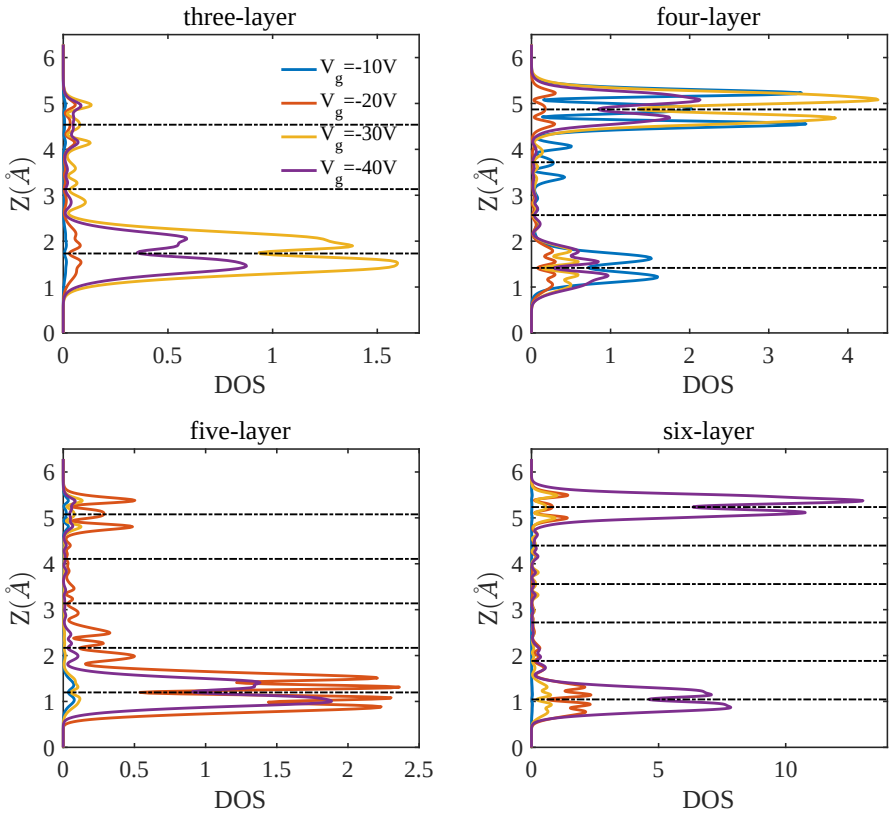

Figure 1 The LDOS at Fermi level when different vertical gate voltages are applied in electrode. The horizontal dashed-dot black lines represent the central atomic position of each layer.

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