## Intrinsic Limit of Contact Resistance in Lateral Heterostructure of Metallic and Semiconducting PtSe<sub>2</sub>

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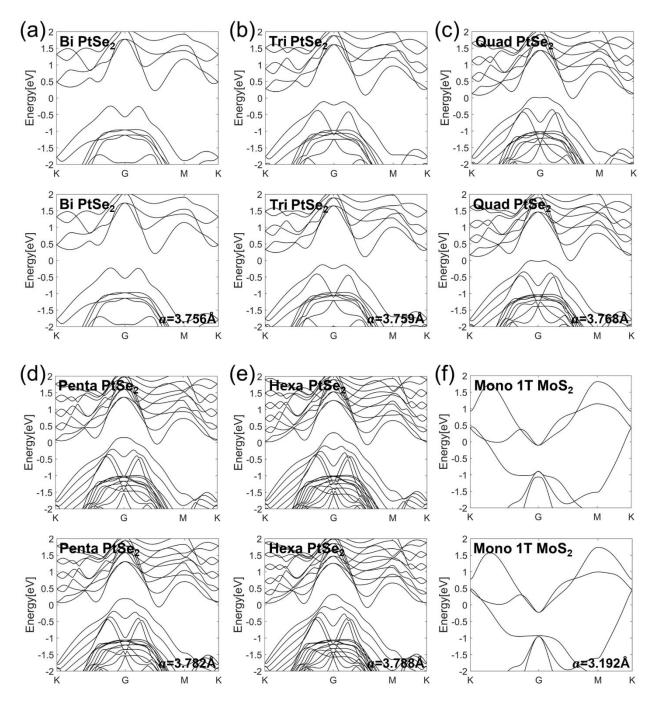


Figure S1. Band structures of (a) bilayer PtSe<sub>2</sub>, (b) trilayer PtSe<sub>2</sub>, (c) quadlayer PtSe<sub>2</sub>, (d) pentalayer PtSe<sub>2</sub>, (e) hexalayer PtSe<sub>2</sub> and (f) monolayer 1T MoS<sub>2</sub> without (top) and with (bottom) the optimization of the in-plane lattice constant.