

## Supporting Information

### Theoretically Evaluating Two-Dimensional Tetragonal Si<sub>2</sub>Se<sub>2</sub> and SiSe<sub>2</sub> Nanosheets as Anode Materials for Alkali Metal-Ion Batteries

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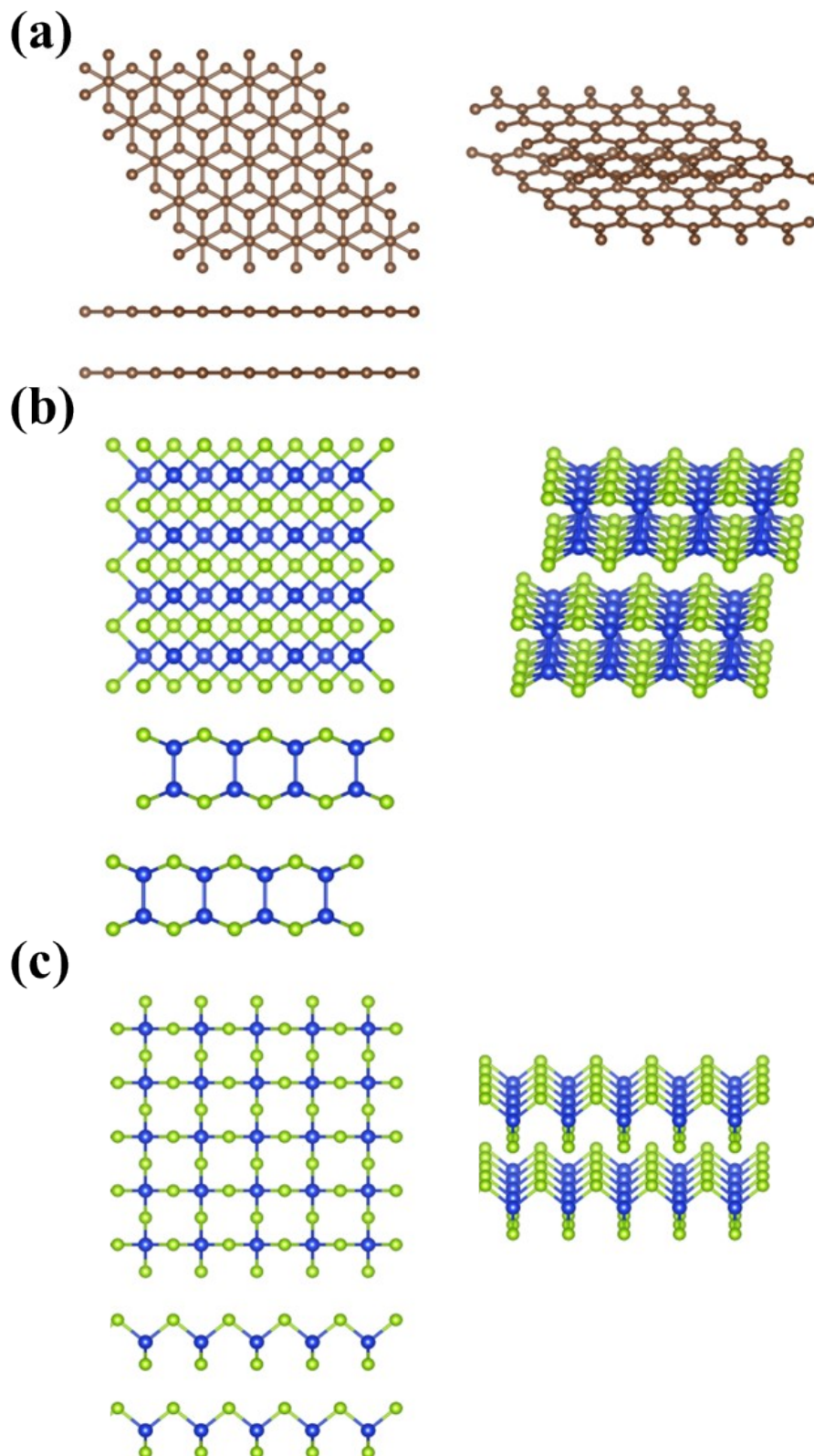
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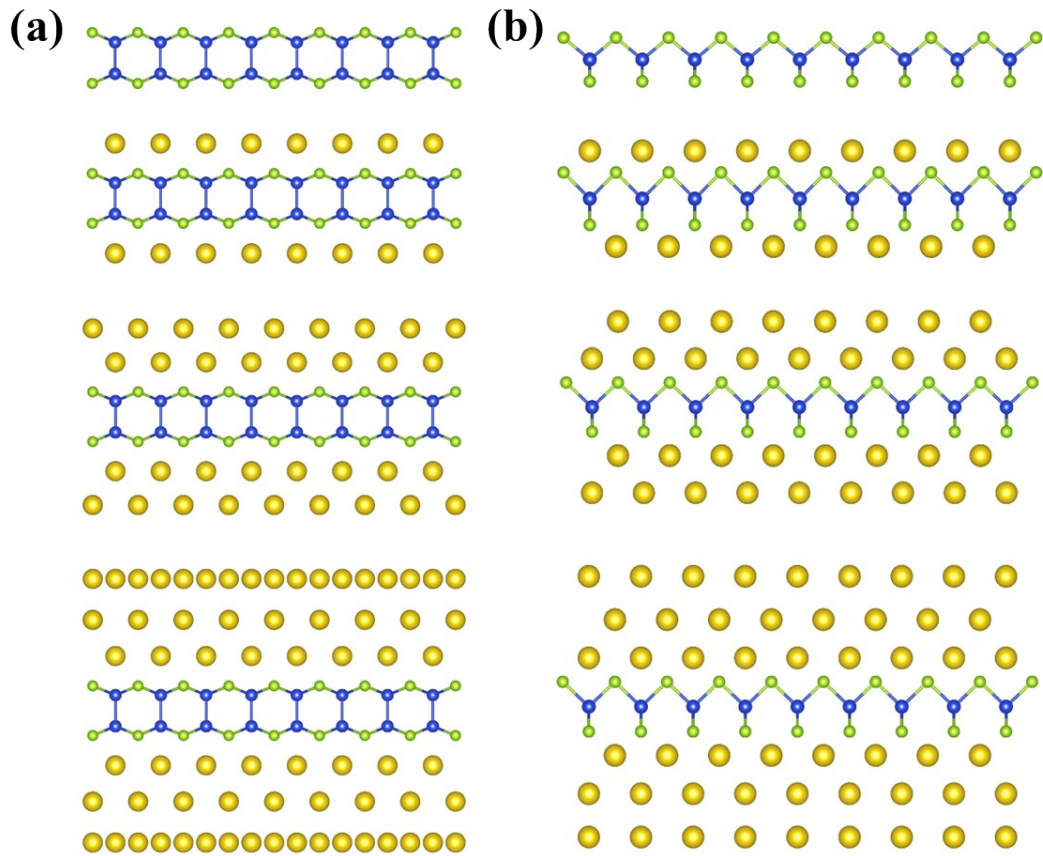
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**Figure S1:** (a) Stable stacking configuration of two layers of graphene. (b) Stable stacking configuration of two layers of  $\text{Si}_2\text{Se}_2$ . (c) Stable stacking configuration of two layers of  $\text{SiSe}_2$ .



**Figure S2:** (a) Clean  $\text{Si}_2\text{Se}_2$  and  $\text{Si}_2\text{Se}_2$  with one-, two- and three-layer Na adsorption on both sides. (b) Clean  $\text{SiSe}_2$  and  $\text{SiSe}_2$  with one-, two- and three-layer Na adsorption on both sides.