

Fig. S1 Structure diagram of B-Al doped silicene at different positions

Table S1 The formation energy( $E_f$ ) at different positions

Positions	a	b	c	d	e	f
$E_f(\text{eV})$	-3.148	-3.143	-3.151	-3.144	-3.146	-3.150

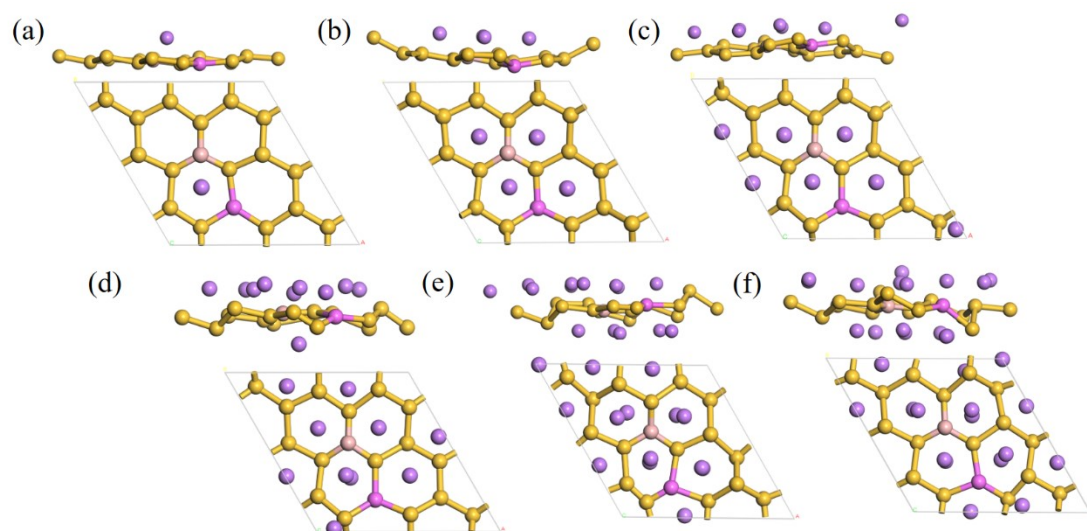


Fig. S2 The side and top views of B-Al doped structures with different amounts of Li ions adsorption after structure optimization.