Supporting Information File

Reexamination of the Origin of the Pseudo Jahn-Teller Puckering Instability in Silicene

Table S1 Standard errors for the fitting coefficients of the 4th order polynomial regression applied to the ground and excited states APES

Method	State	Standard errors*		
		a_0 (eV)	a_2 (eV/$\mathring{A}^2$)	a_4 (eV/$\mathring{A}^4$)
TPSSH	Ground	0.07	0.84	18.1
	1 B_{2g}	0.10	1.07	20.4
	2 B_{2g}	0.30	3.20	60.9
B3LYP	Ground	0.02	0.22	0.42
	1 B_{2g}	0.22	2.37	4.50
	2 B_{2g}	0.53	5.59	10.6

*All values must be multiplied by 10^{-2}