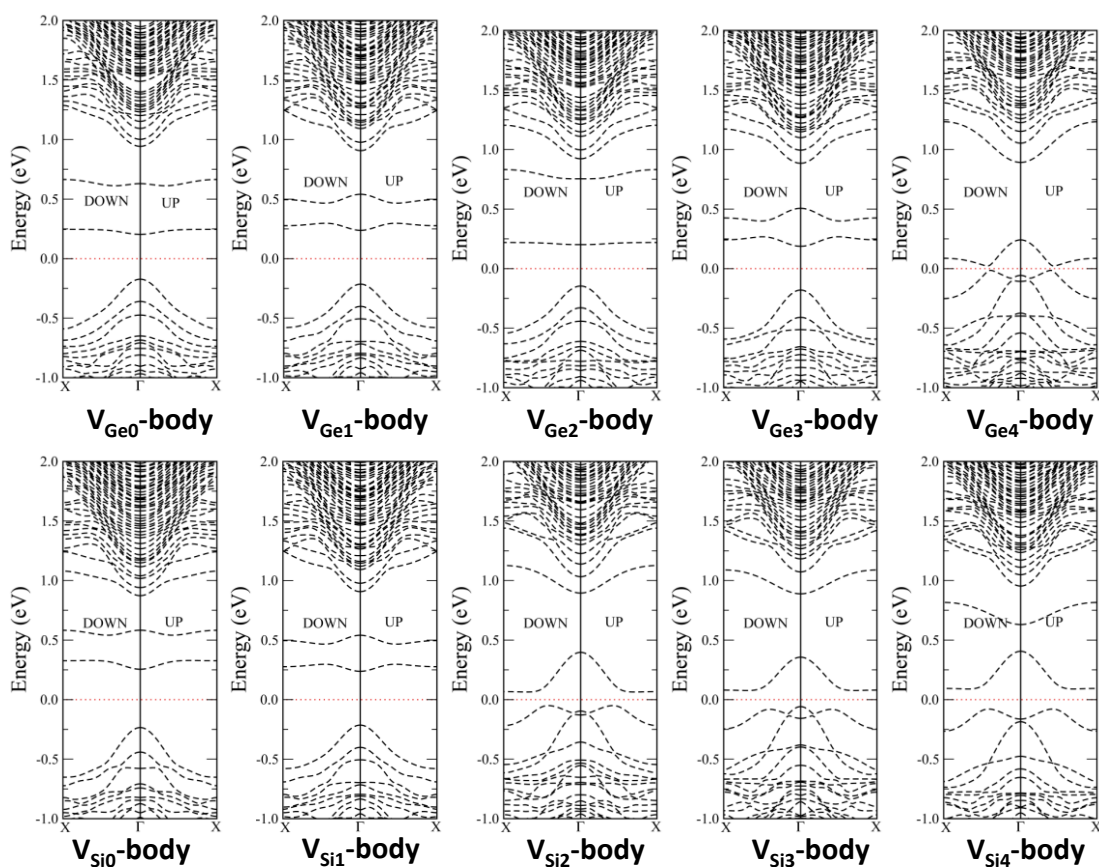
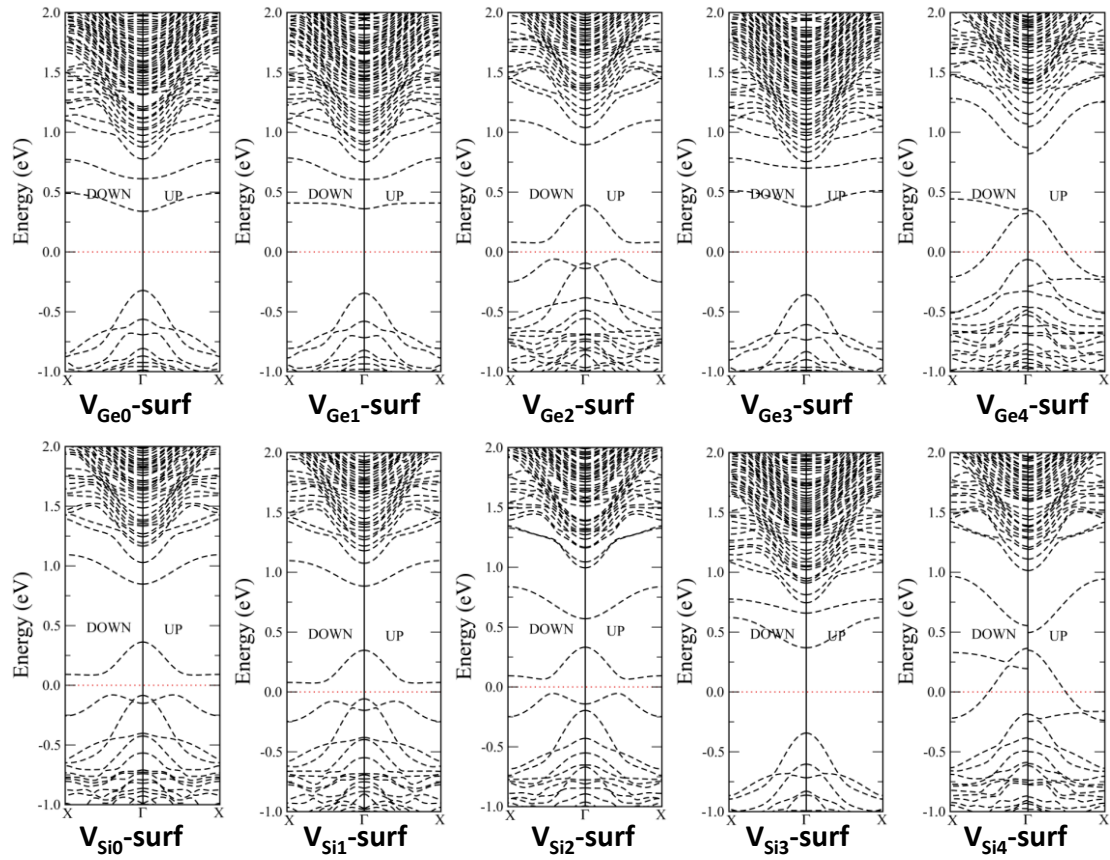


## Electronic Supplementary Information



**Figure S1** Computed band structures of the random-distributed triangular-prism (RTP) Si/Ge NWs with Ge and Si single vacancy in the body.



**Figure S2** Computed band structures of the random-distributed triangular-prism (RTP) Si/Ge NWs with Ge and Si single vacancy on the surface.