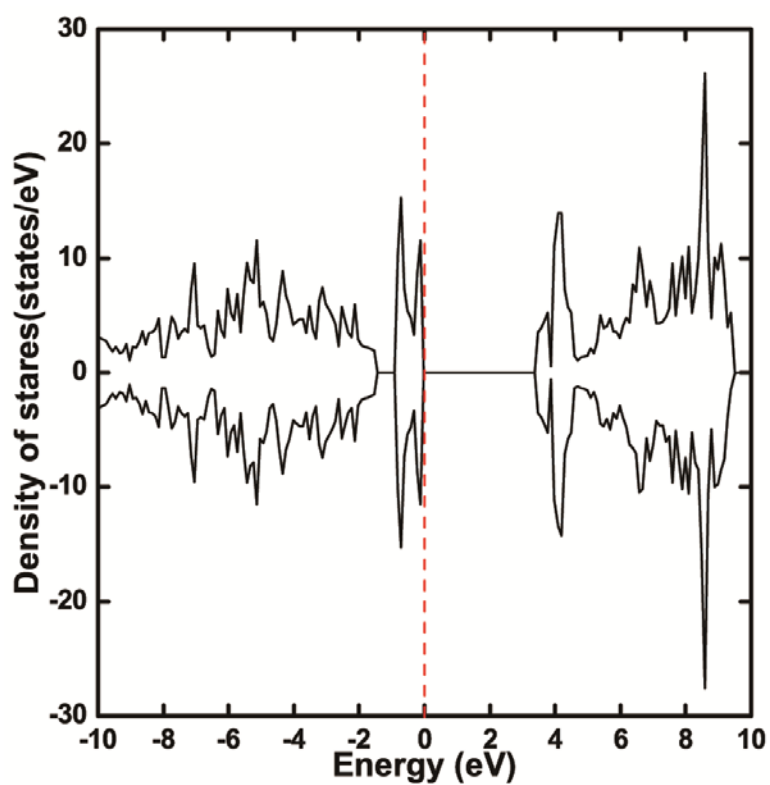


## Supporting information for

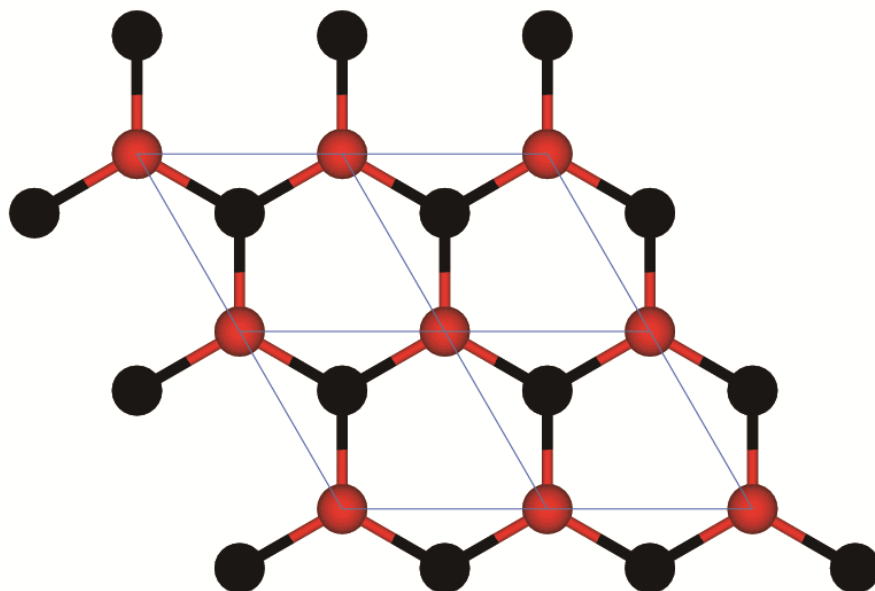
### Electronic and magnetic properties of the two-dimensional C<sub>4</sub>H-type polymer with strain effects, intrinsic defects and foreign atom substitutions

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**Figure S1.** The total DOS of the pure C<sub>4</sub>H monolayer. The vertical dashed line represents the Fermi level.



**Figure S2.** Schematic diagrams of the lattice structure of graphene. The black and red coloured sublattice sites indicate the  $C'$  and  $C''$  atoms of graphene, respectively.