

## Supporting Online Material

### Anomalous high adsorption energy of H<sub>2</sub>O on Fluorinated Graphenes: A First Principle Study

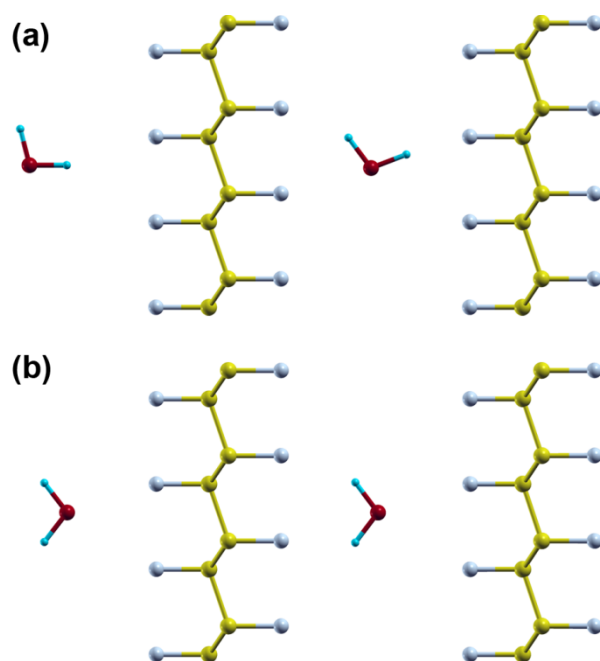
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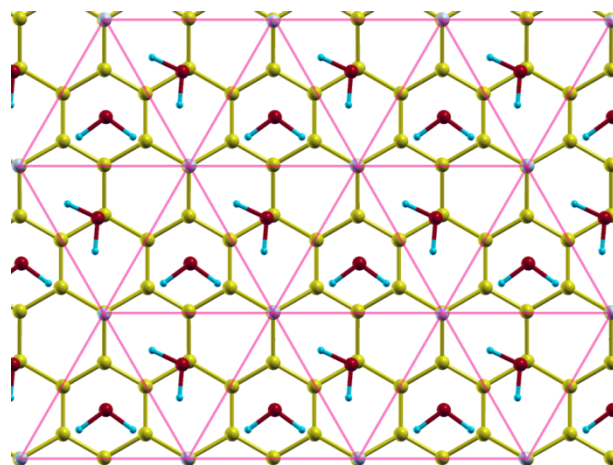
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## Supporting Figures



**Fig. S1.** The initial setups (left) and corresponding final configurations (right) of a  $\text{H}_2\text{O}$  molecule on CF: (a) No. 1, (b) No. 3.



**Fig. S2.** The energetically favored positions of water molecules on C<sub>4</sub>F substrate. Each H<sub>2</sub>O molecule is positioned in the center of triangle, which is formed by three nearby F atoms.