

## **Design and analysis of 2D grapheneplus (G+) based gas sensor for the detection of multiple organic gases**

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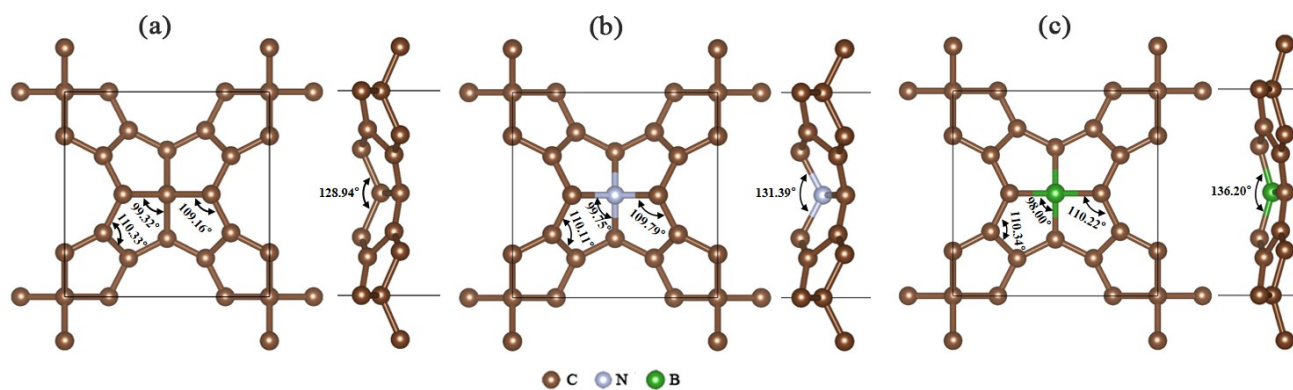
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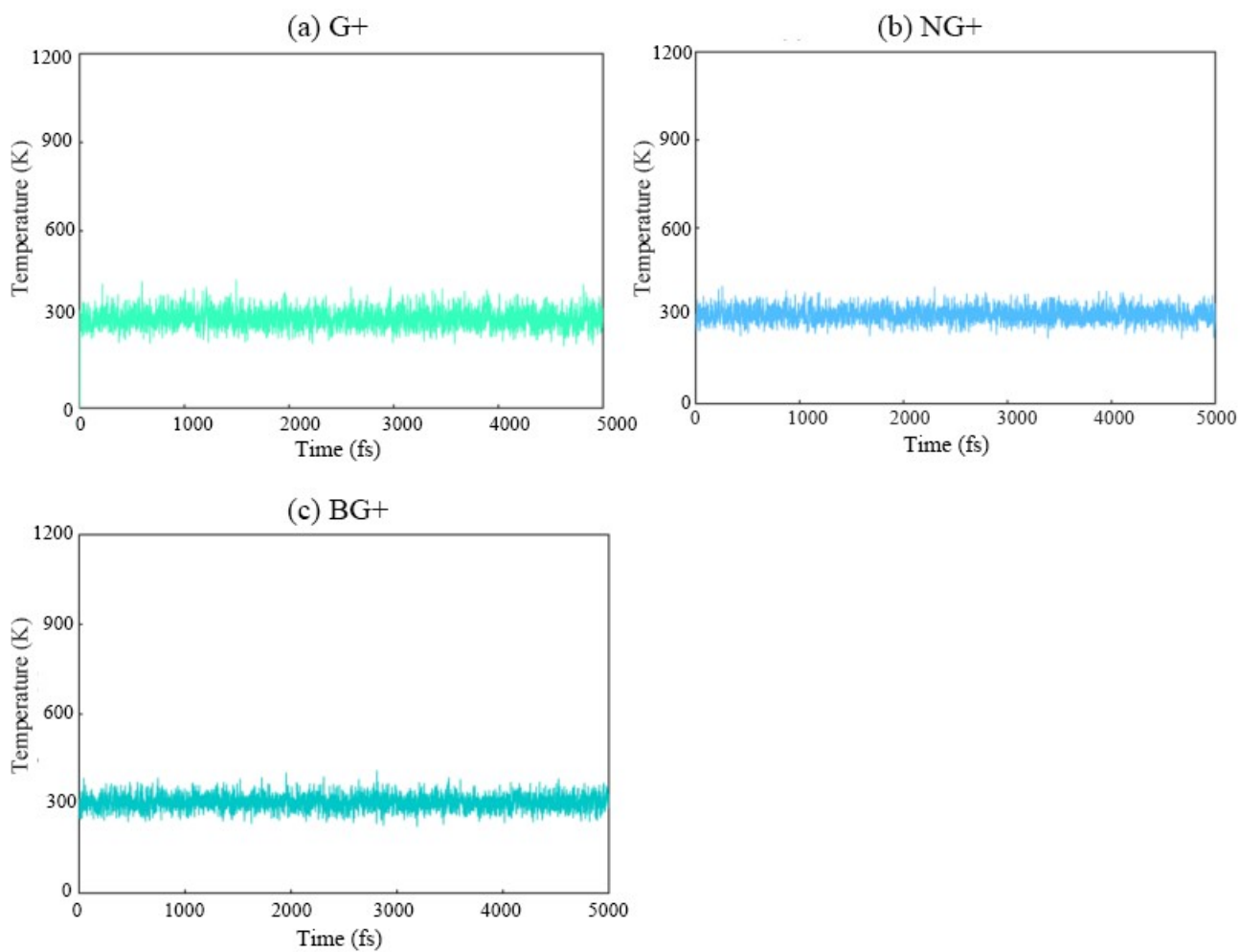
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## Supporting Figures

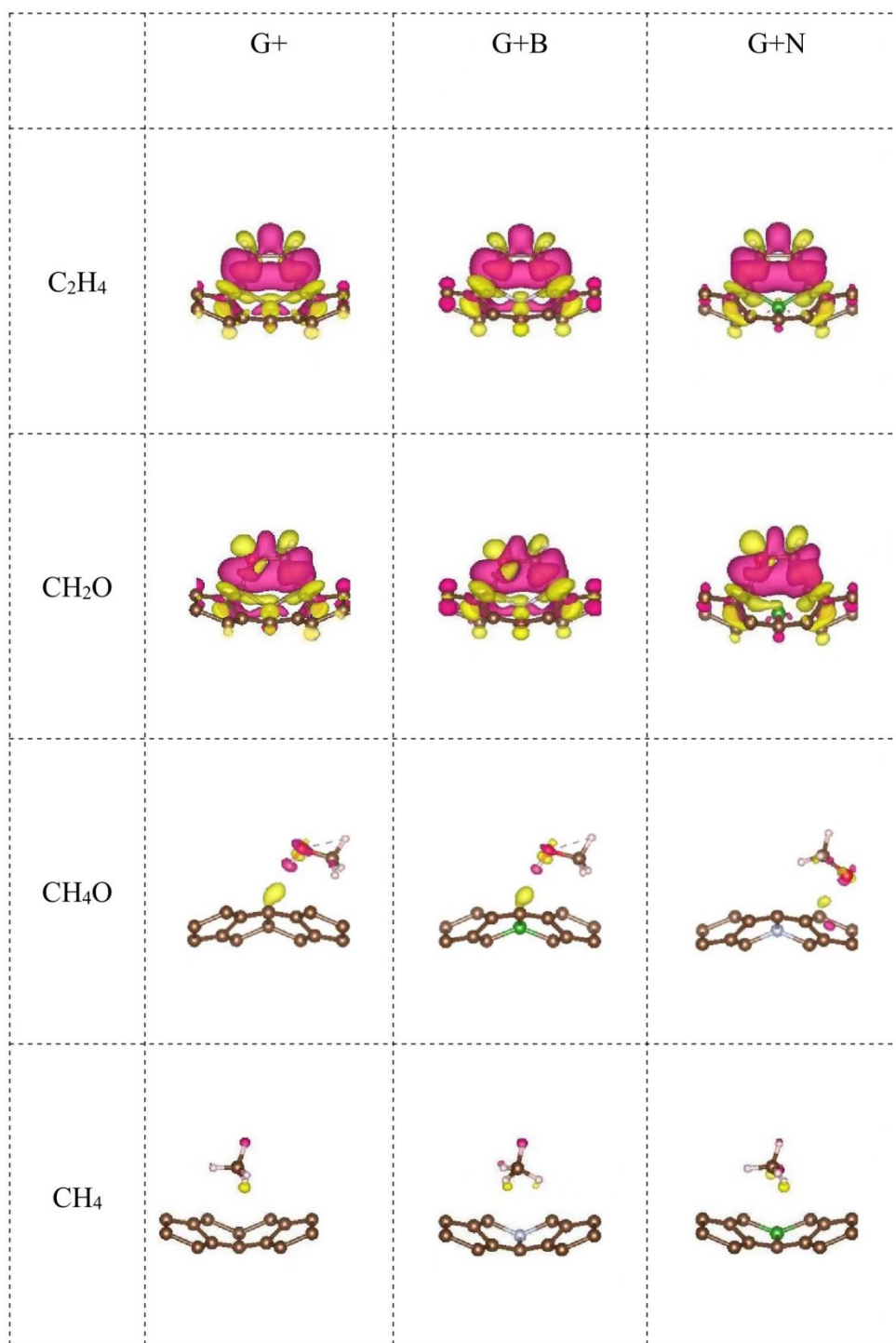


**Fig. S1** Top and side views of the (a)G+, (b)NG+ and (c)BG+ monolayers.



**Fig. S2** (a), (b) and (c) The temperature variation of the G+, NG+ and BG+ monolayers as a function

of molecular dynamics simulation steps at 300 K, respectively.



**Fig. S3** Difference charge density of the the G+, NG+ and BG+ monolayers adsorbed C<sub>2</sub>H<sub>4</sub>, CH<sub>2</sub>O, CH<sub>4</sub>O and CH<sub>4</sub>.

