Electronic Supplementary Information (ESI)

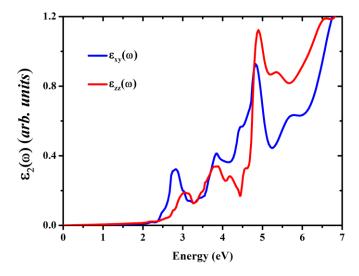
## ZnO-GaN Heterostructured Nanosheets for Solar Energy Harvesting: Computational Studies Based on Hybrid Density Functional Theory

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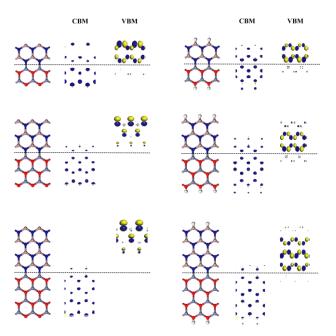
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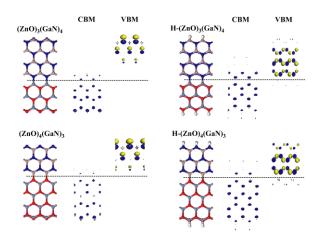
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**Figure S1** Imaginary part  $\varepsilon_2(\omega)$  of the H-(ZnO)<sub>4</sub>(GaN)<sub>4</sub> nanosheets.



**Figure S2** Charge distribution of the band edges for the bare (left) and hydrogenated (right)  $(ZnO)_m(GaN)_n$  (m = n = 2, 3, 4) nanosheets, respectively. Black dashed lines represent the interface between the ZnO and GaN region.



**Figure S3**. Charge distributions of the bare (left) and passivated (right) the  $(ZnO)_3(GaN)_4$  and  $(ZnO)_4(GaN)_3$  nanosheets. Black dashed lines represent the interface between the ZnO and GaN region.