

## Electronic Supplementary Information (ESI)

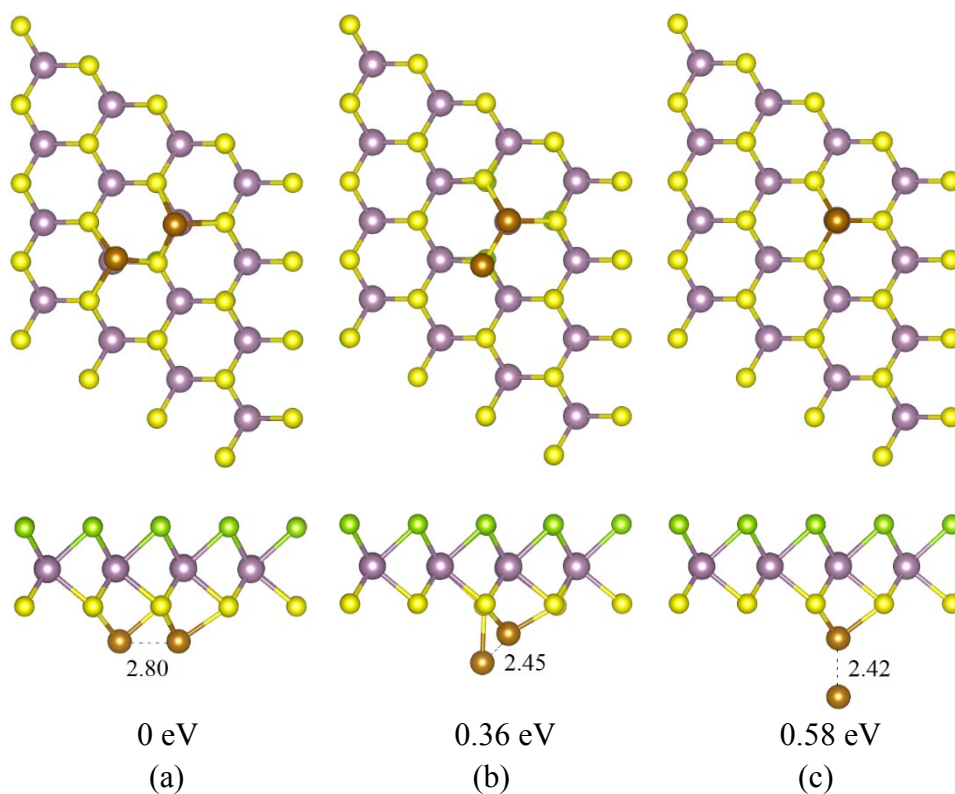
### Exploring promising gas sensing and highly active catalysts for CO oxidation: transition-metal (Fe, Co and Ni) adsorbed Janus MoSSe monolayer

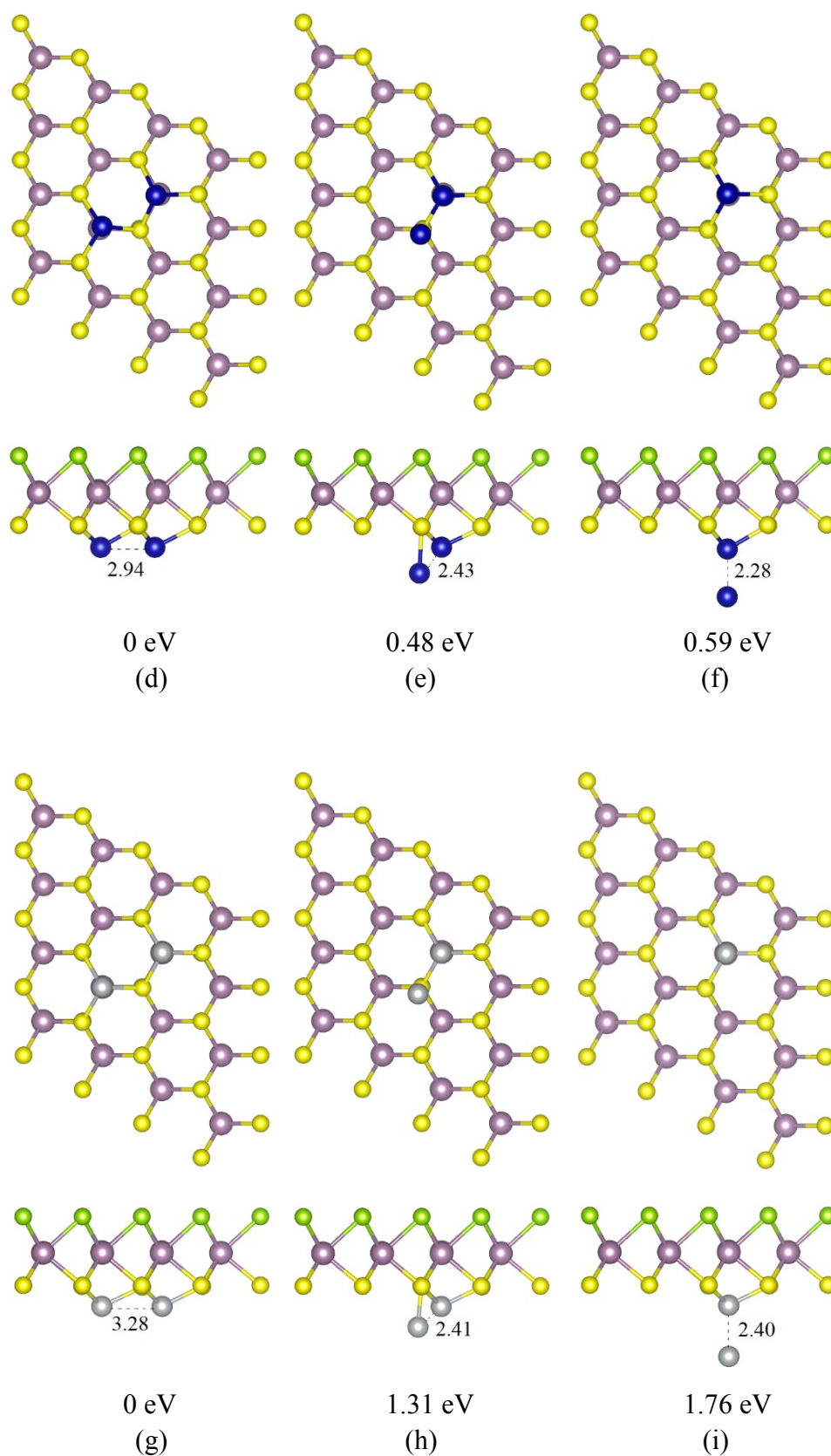
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**Fig. S1** The top and side view of two Fe ((a), (b) and (c)), Co ((d), (e) and (f)) and Ni ((g), (h) and (i)) atoms adsorbed on Janus MoSSe monolayer. All bond lengths are in Å. The relative energies (eV) are also given.