

Supporting Informations

**The Adsorption and Growth of Ag_n ($n = 1\sim 4$) Clusters
on Cubic, Monoclinic, and Tetragonal ZrO_2 Surfaces:
A First-Principles Study**

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Fig. S1 Top view of all the adsorption configurations and the corresponding energies of Ag_n ($n = 1 \sim 4$) structures adsorbed on c-ZrO_2 (1 1 1) surface at all possible sites. Only the surface atoms are shown as round (red, O; white-blue, Zr, dark-blue, Ag). This notation is used throughout this paper.

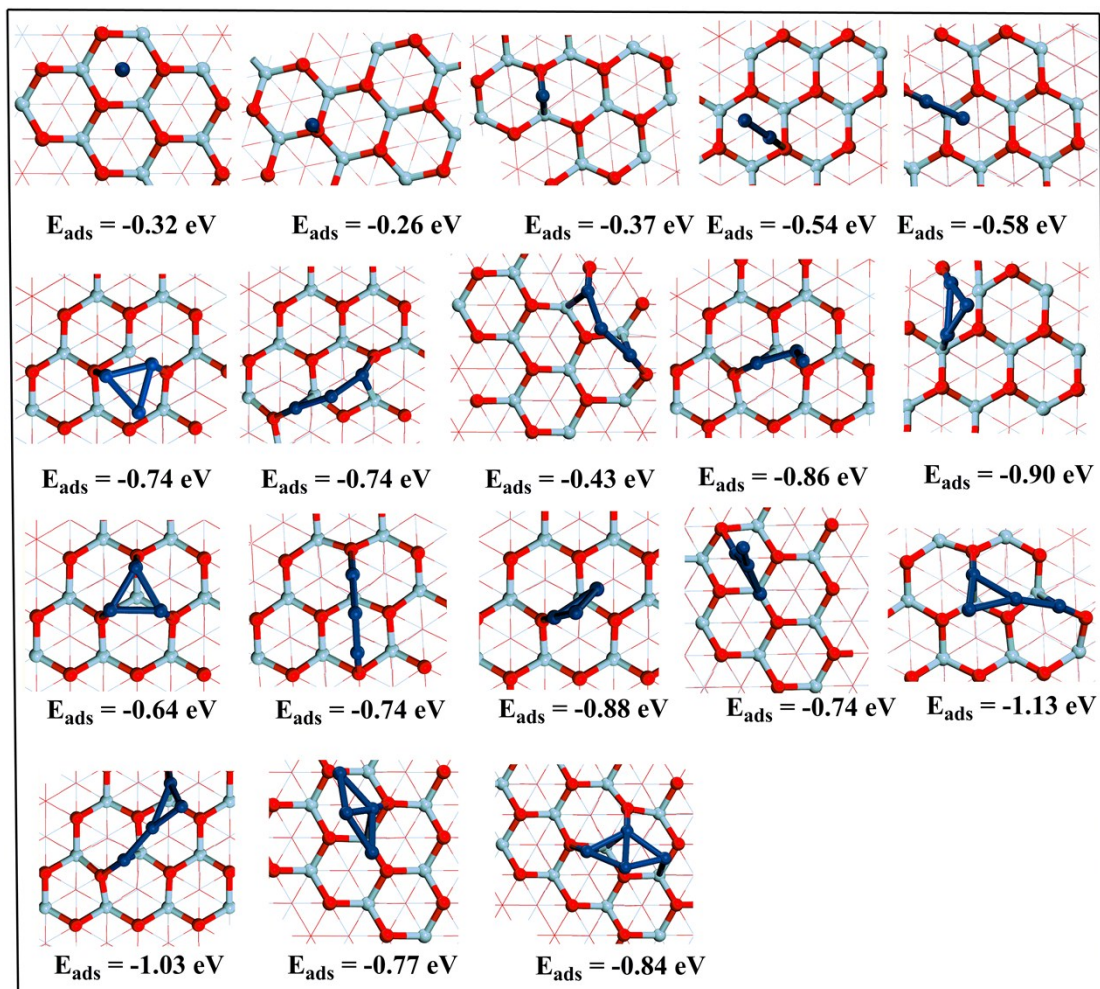


Fig. S2 Top view of all the adsorption configurations and the corresponding energies of Ag_n ($n = 1 \sim 4$) structures adsorbed on t-ZrO_2 (1 0 1) surface at all possible sites.

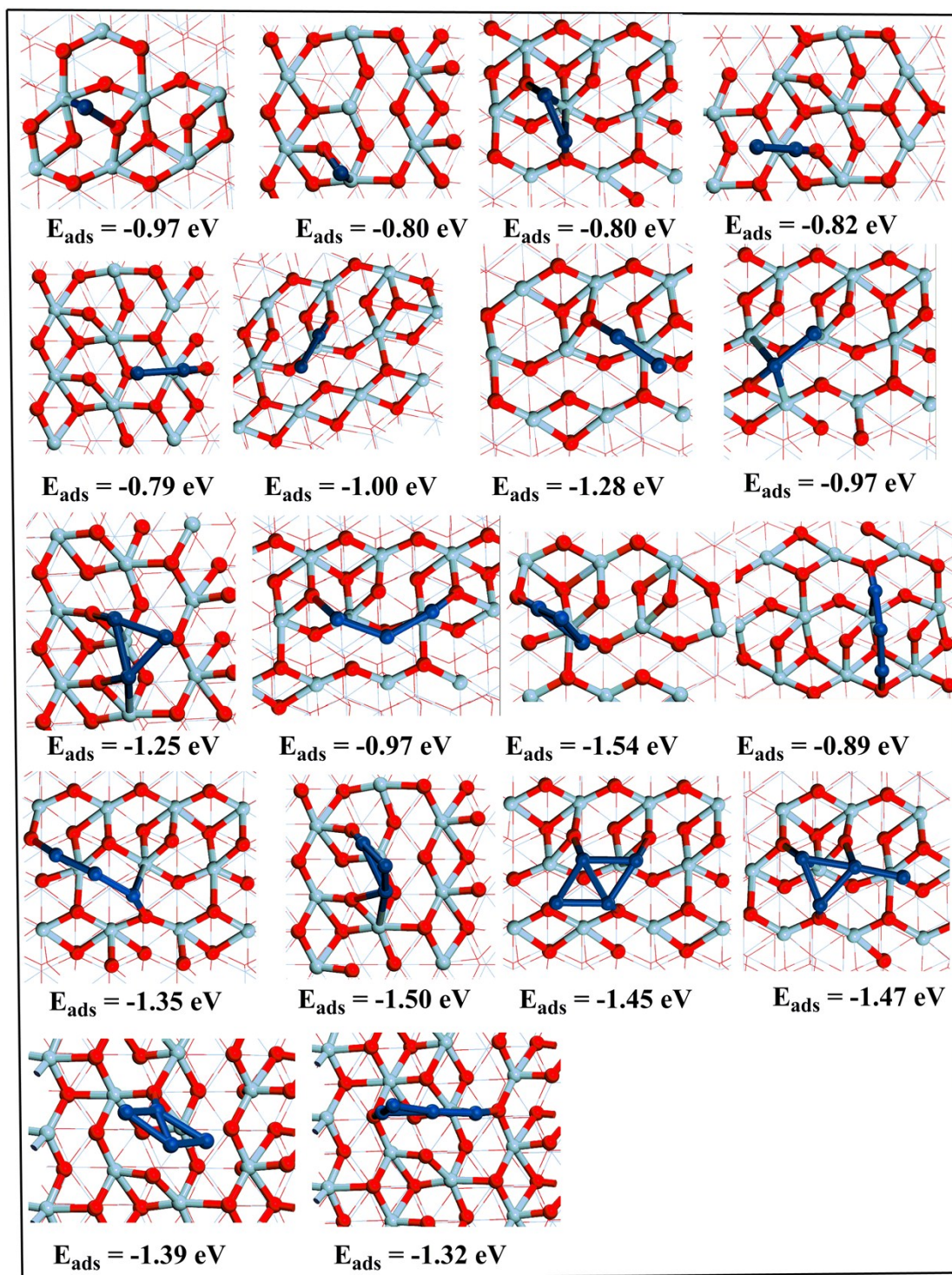


Fig. S3 Top view of all the adsorption configurations and the corresponding energies of Ag_n ($n = 1 \sim 4$) structures adsorbed on m-ZrO_2 ($\bar{1} \ 1 \ 1$) surface at all possible sites.

