Supplementary Information

NO adsorption and diffusion on hydroxylated rutile TiO₂(110)

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Fig. S1 Calculated structures of (a) the hydroxylated rutile $TiO_2(110)$ surface and (b)-(f) the corresponding contour diagrams of the excess electron being localized at different Ti atoms in the subsurface (b) or on the surface (c-f).



Fig. S2 Calculated total density of states of (a) NO adsorbed on the hydroxylated rutile $TiO_2(110)$ surface, and (b) partial density of states of adsorbed NO.



Fig. S3 Calculated energy profile of NO diffusion through Pathway III.