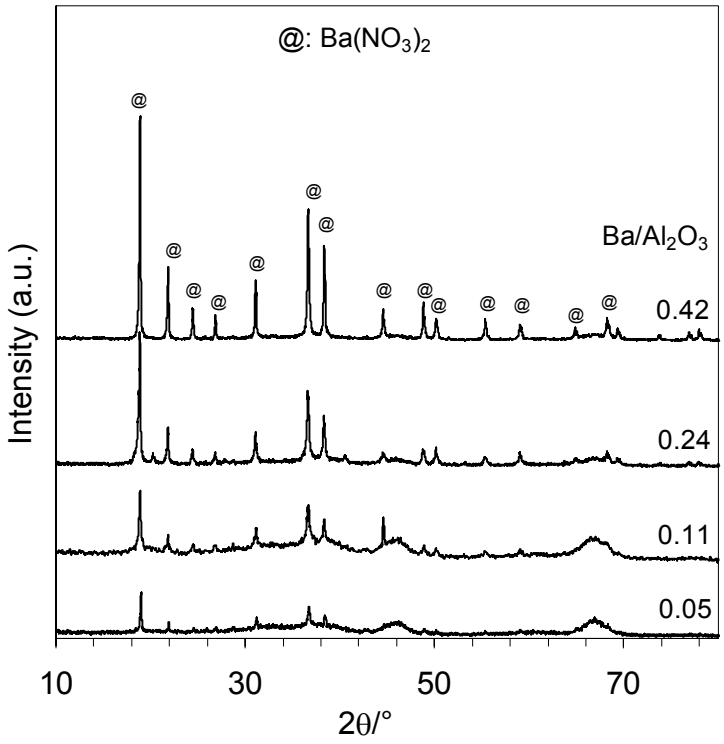
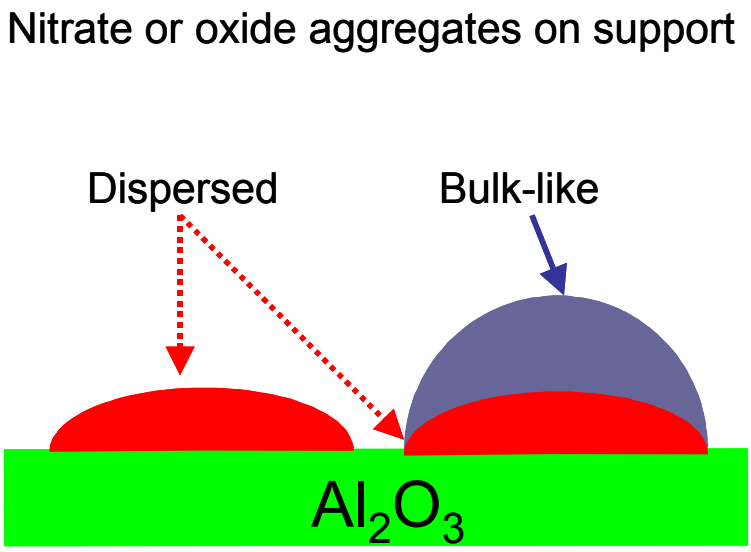
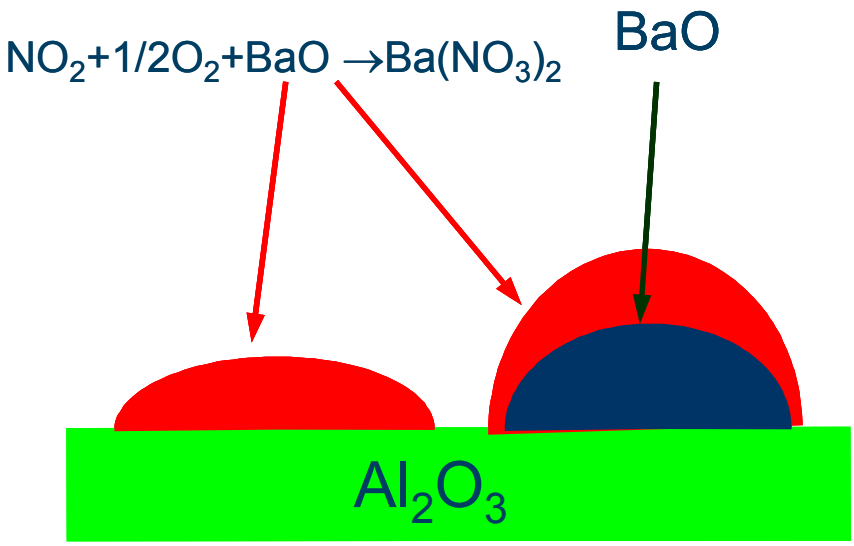
ESI for Communication Ref. **B412672F** (J. Schwank)



S-Figure 1. XRD patterns of $Ba(NO_3)_2/\gamma\text{-}Al_2O_3$ with different Ba/Al_2O_3 ratios.



S-Figure 2. Schematic description of dispersed $Ba(NO_3)_2$ or BaO (red) and bulk-like $Ba(NO_3)_2$ or BaO (deep blue) loaded on support γ-Al_2O_3. BaO is obtained from decomposition of $Ba(NO_3)_2$ on γ-Al_2O_3.



S-Figure 3. Schematic diagram of NO_2 stored on BaO/Al_2O_3 aggregates to show the role of dispersed BaO and bulk-like phases during NO_2 chemisorption to form $Ba(NO_3)_2$.