**Supplementary Materials**

Mn-Ce-V-WOx/TiO2 catalysts: catalytic activity, stability and interaction among catalytic oxides

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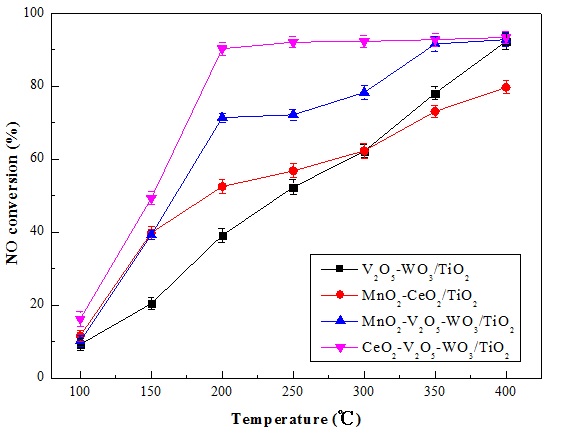


Figure S1. SCR activity of two/three-components composite oxide catalysts

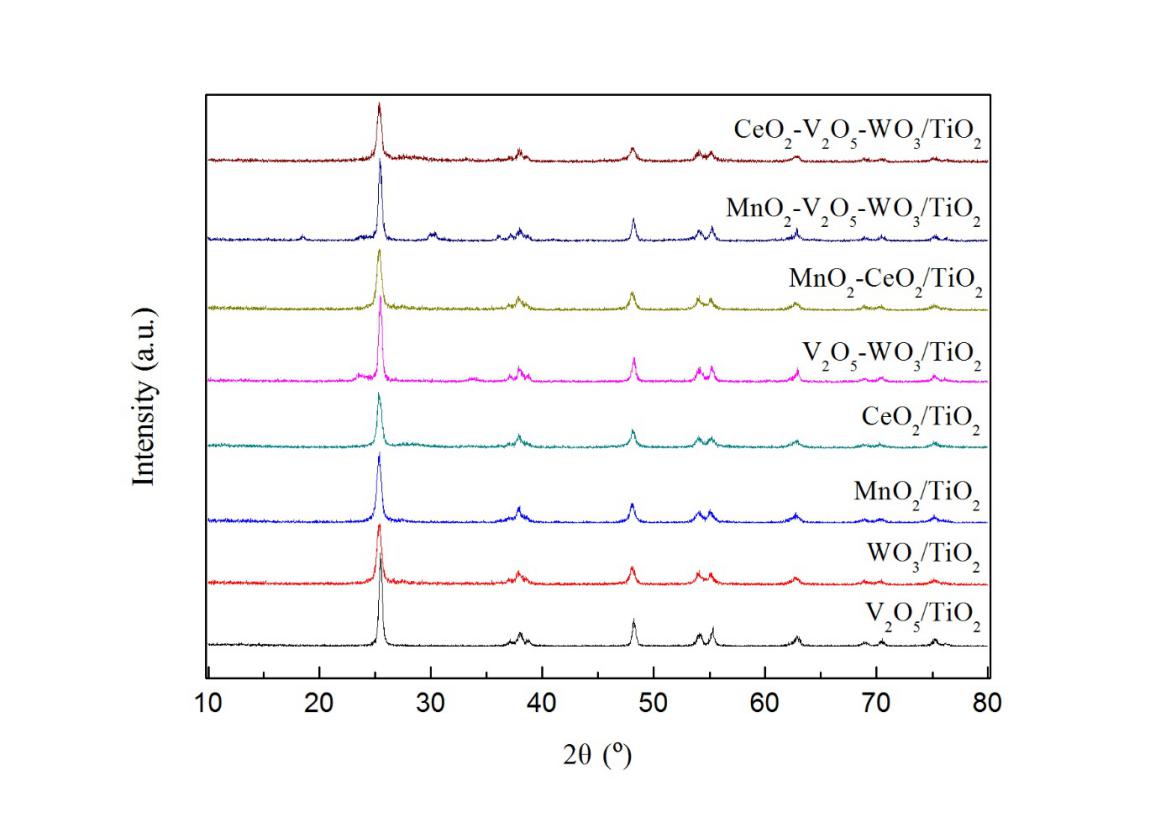


Figure S2. X-ray diffraction patterns of reference catalysts

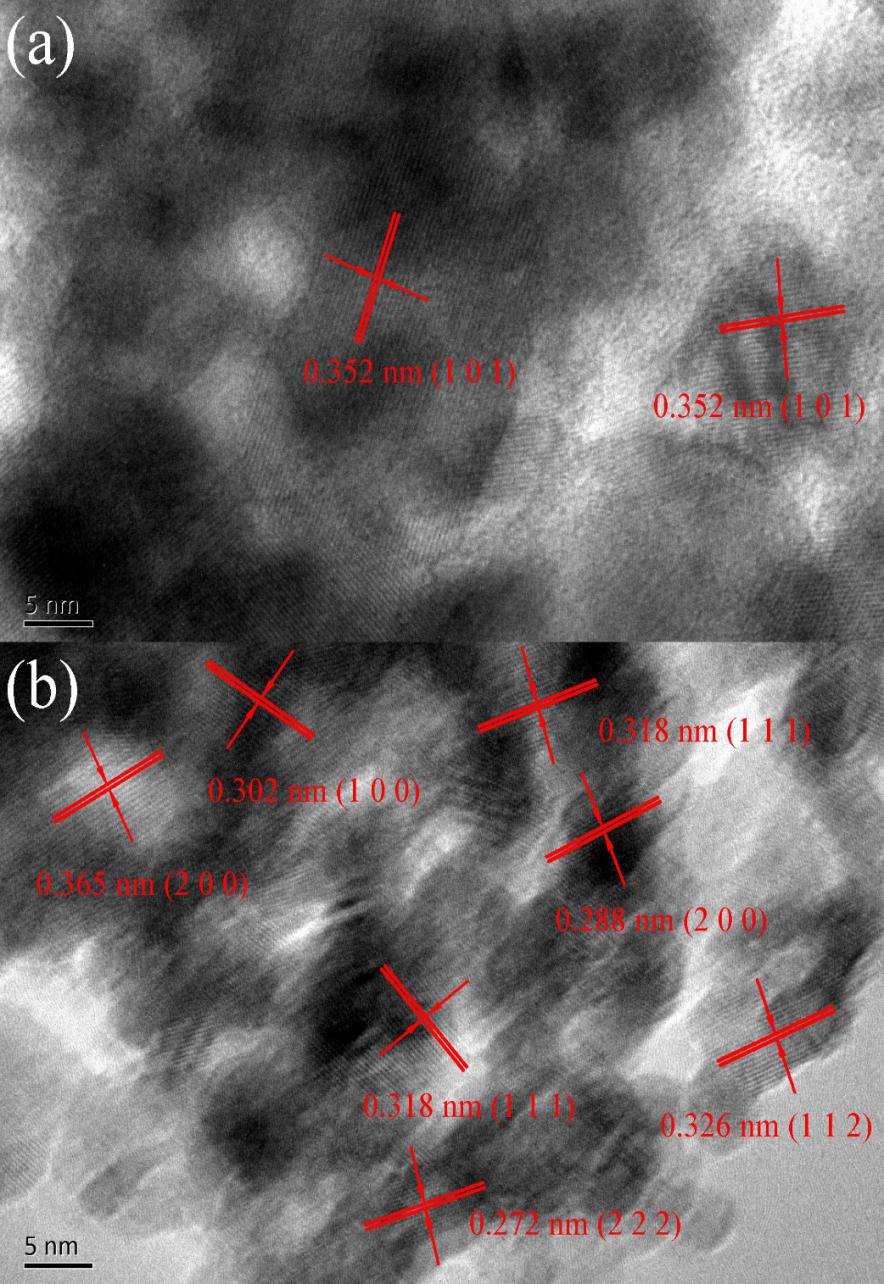


Figure S3. HRTEM images of the composite oxide catalysts: (a) a molar ratio of 0.2; (b) a molar ratio of 0.6.

The lattice spacing of 0.363 nm corresponds to the (200) crystal plane of WO3; the lattice spacing of 0.302 nm corresponds to the (100) crystal plane of Mn3O4; the lattice spacing of 0.318 nm corresponds to the (111) crystal plane of V2O5, the lattice spacing of 0.288 nm corresponds to the(200) crystal piane of Mn3O4, the lattice spacing of 0.326nm corresponds to the (112) crystal plane of CeO2, the lattice spacing of 0.272 nm corresponds to the (222) crystal plane of Mn2O3.

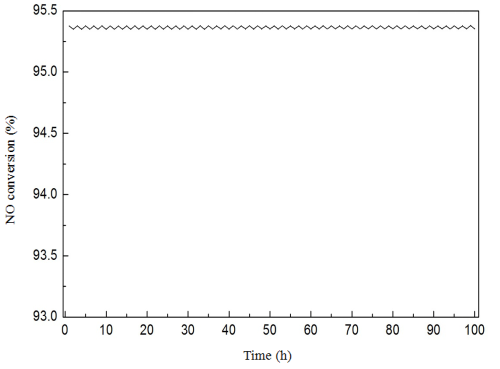


Figure S4. The lifetime of Mn-Ce-V-WOx/TiO2 composite oxide catalysts with molar ratio of 0.2