

Supporting Information

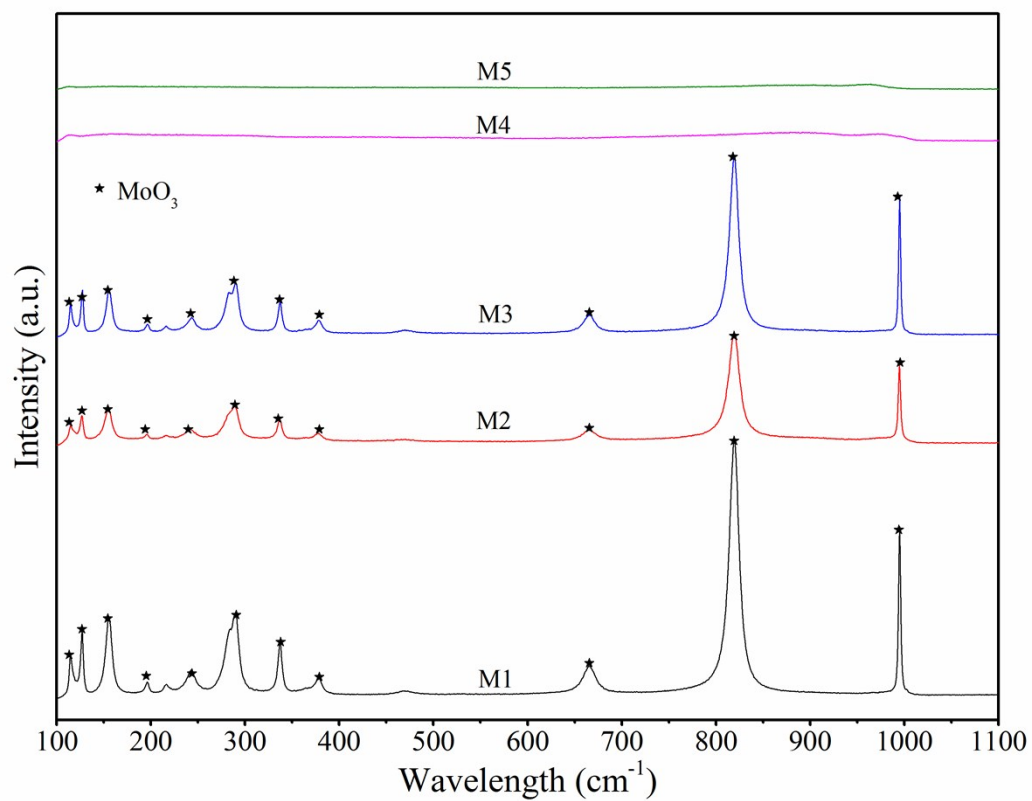


Figure S1. Raman Profiles of different $\text{MoO}_3\text{-SnO}_2$ catalysts.

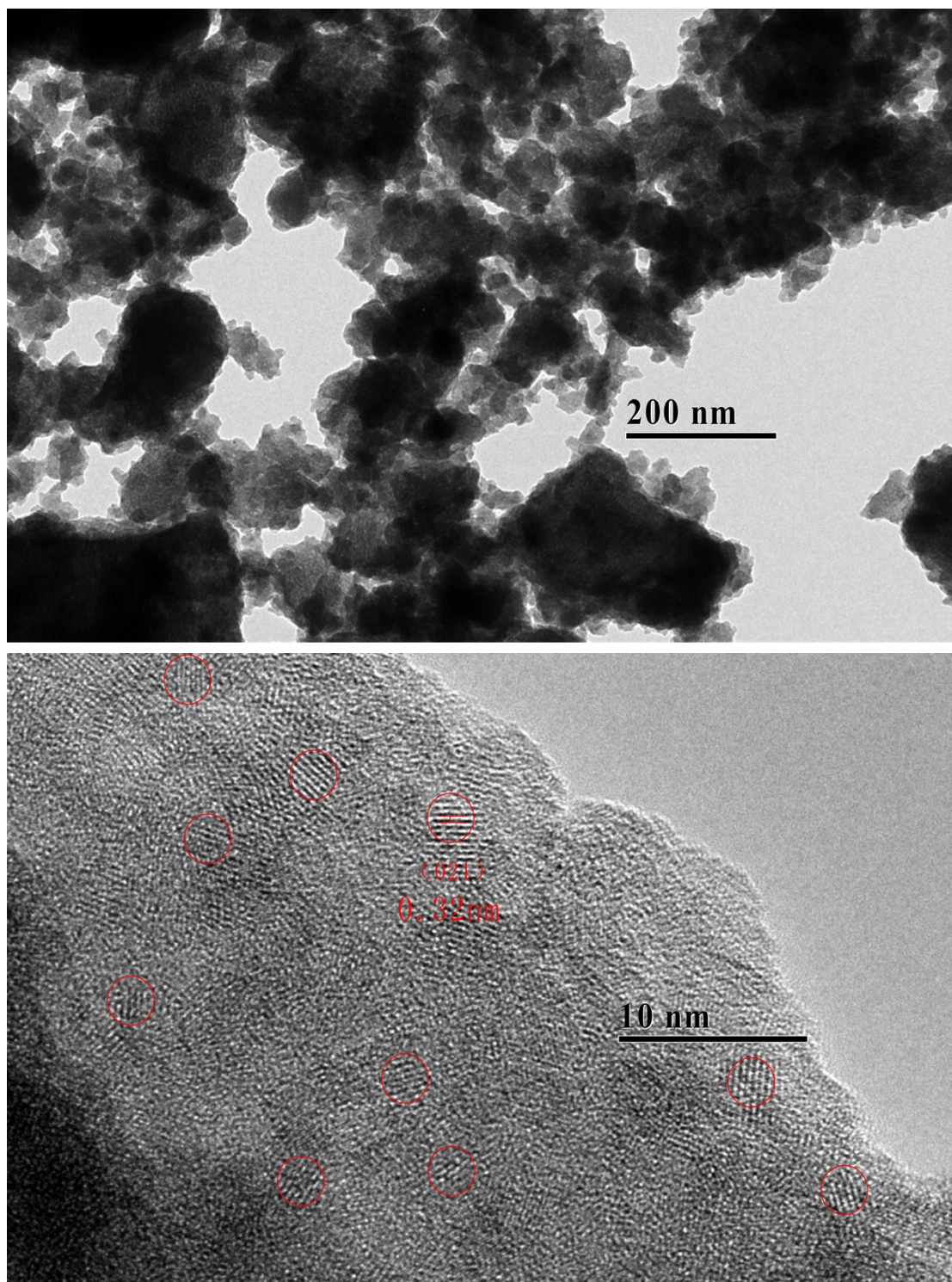


Fig S2-1. HRTEM images of M1.

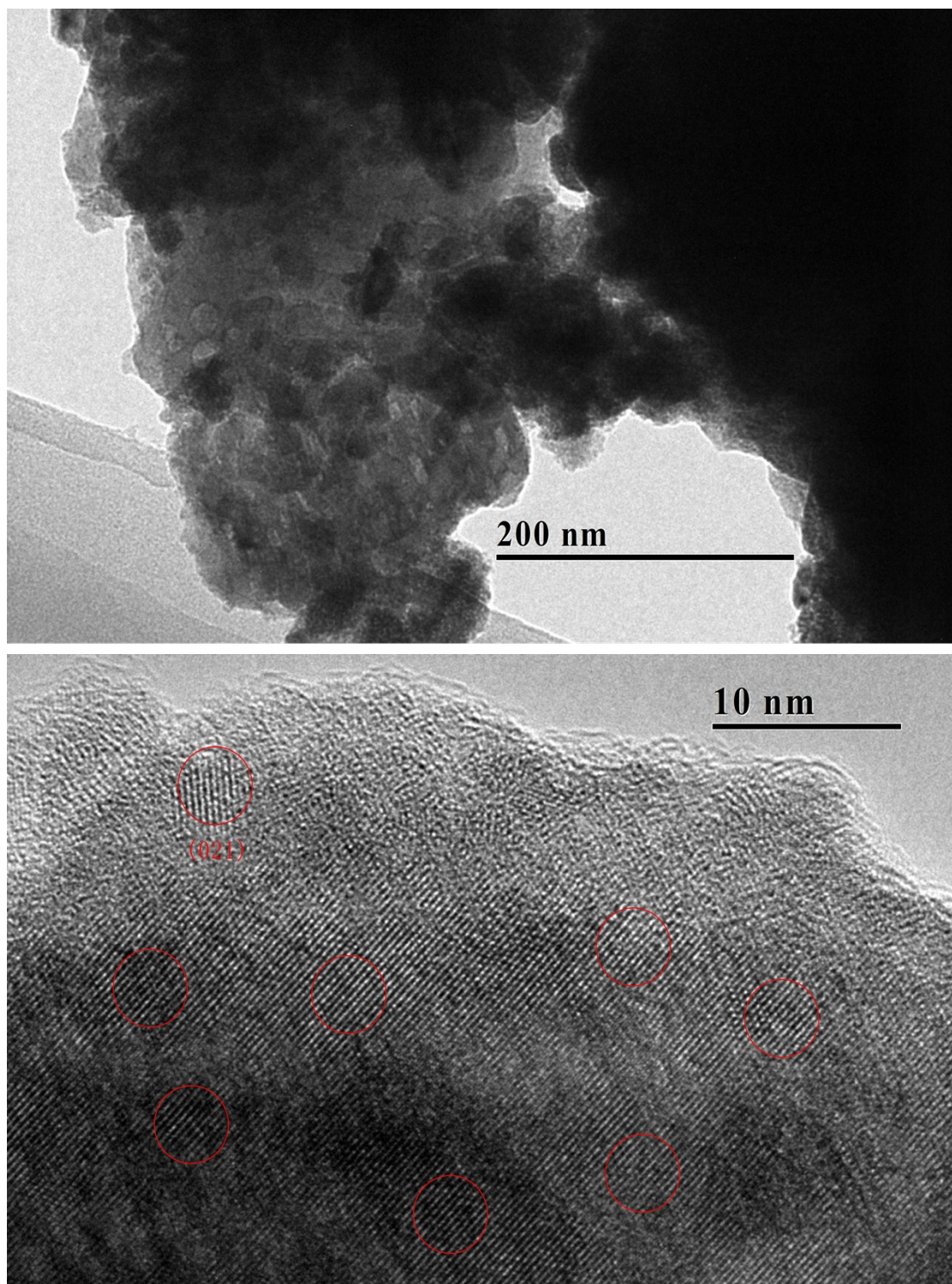


Fig S2-2. HRTEM images of M1 after reaction.

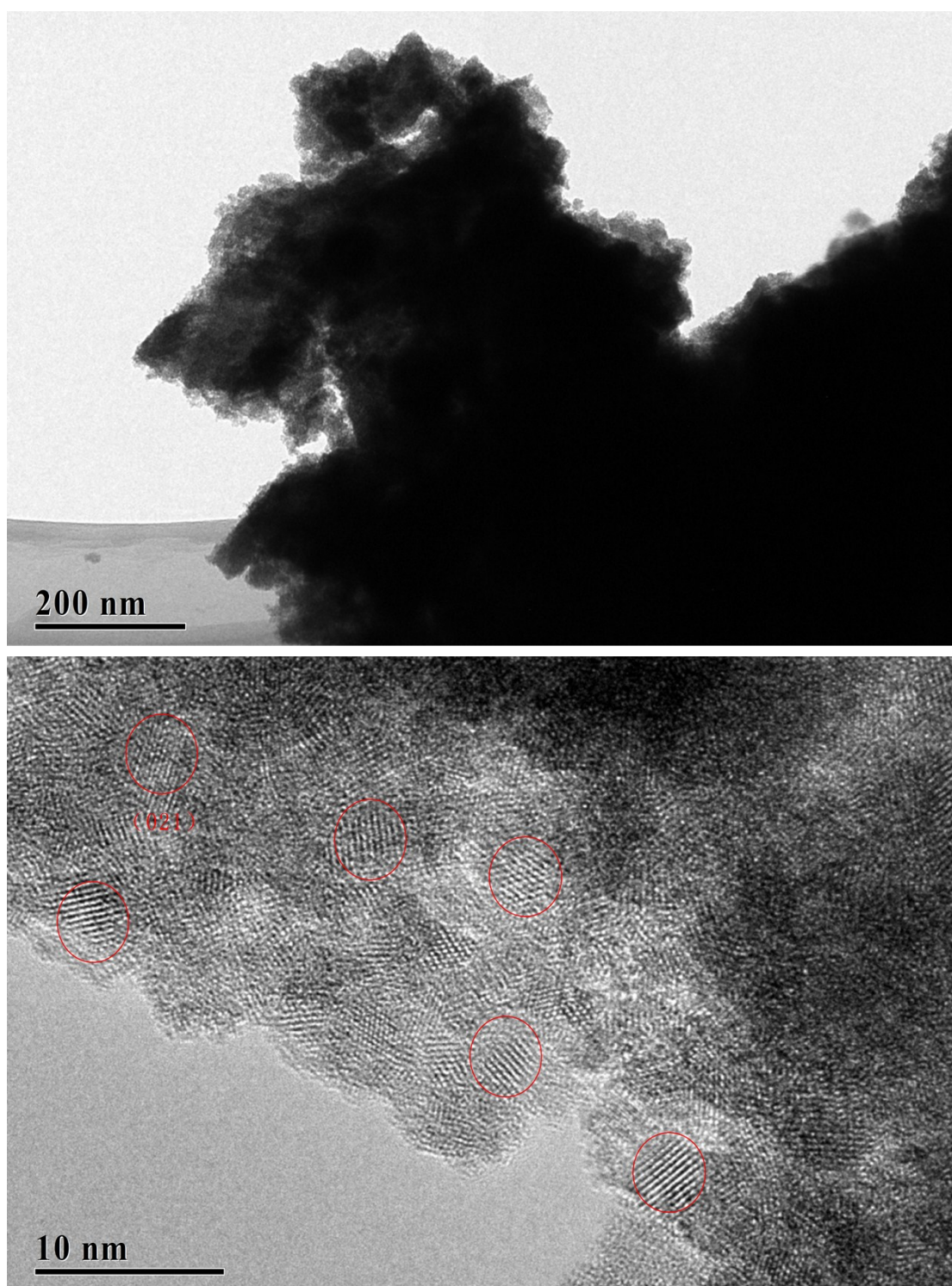


Fig S2-3. HRTEM images of M5 after reaction.

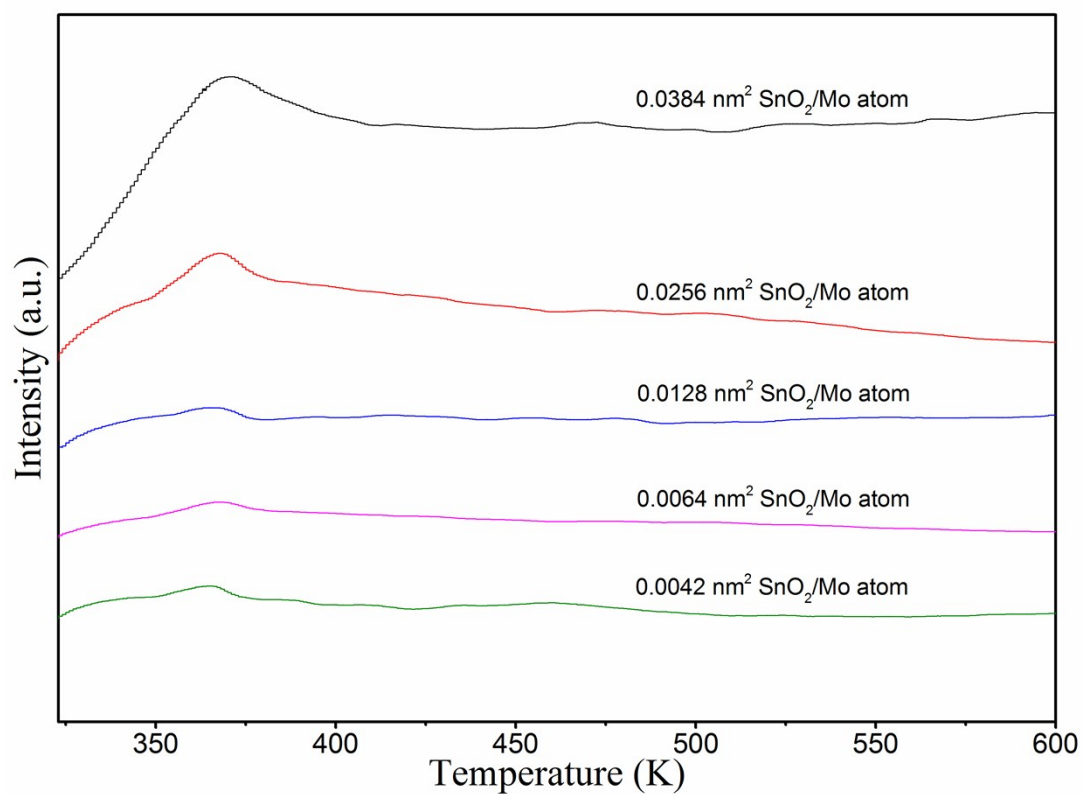


Figure S3. CO_2 -TPD profiles of different MoO_3 - SnO_2 catalysts.

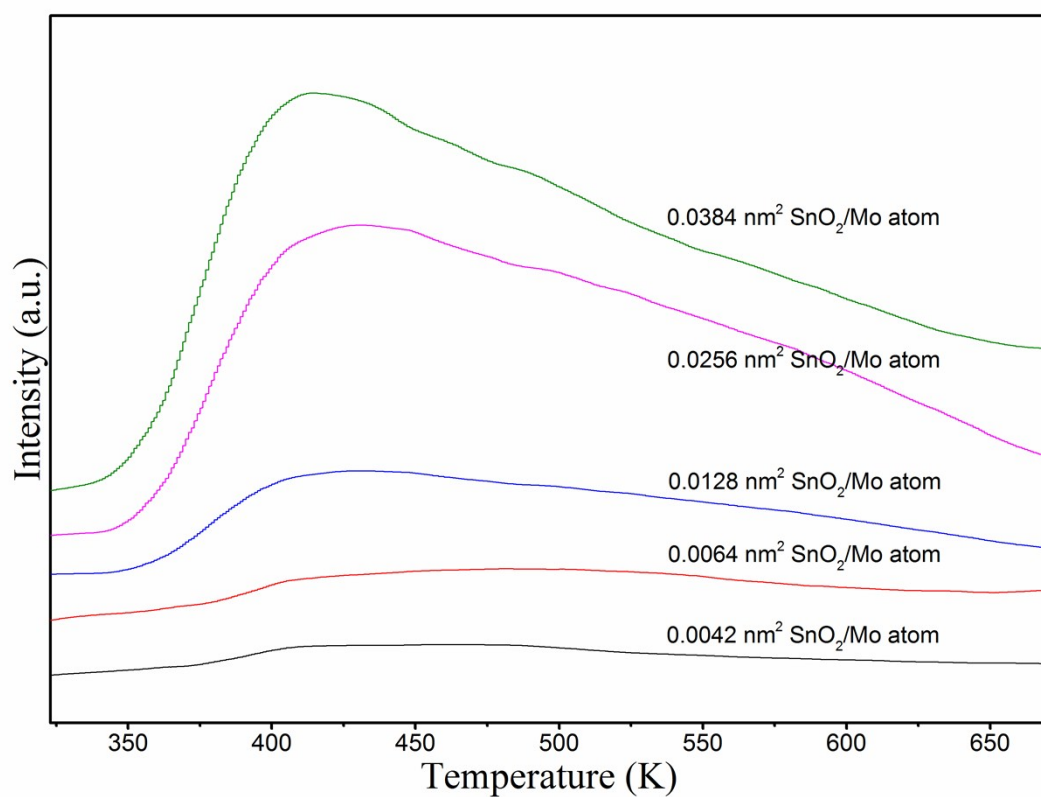


Figure S4. NH_3 -TPD profiles of different MoO_3 - SnO_2 catalysts.

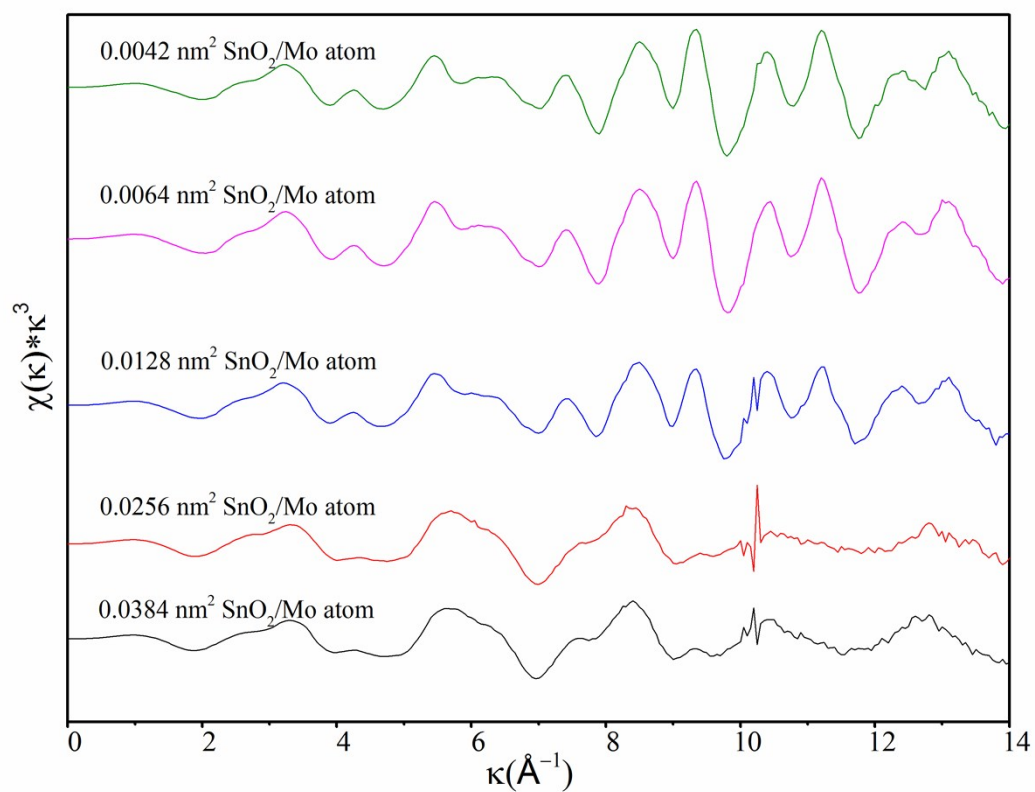


Figure S5-1. Mo K-edge XAFS $\chi(k) * k^3$ of $\text{MoO}_3\text{-SnO}_2$ catalysts after reaction.

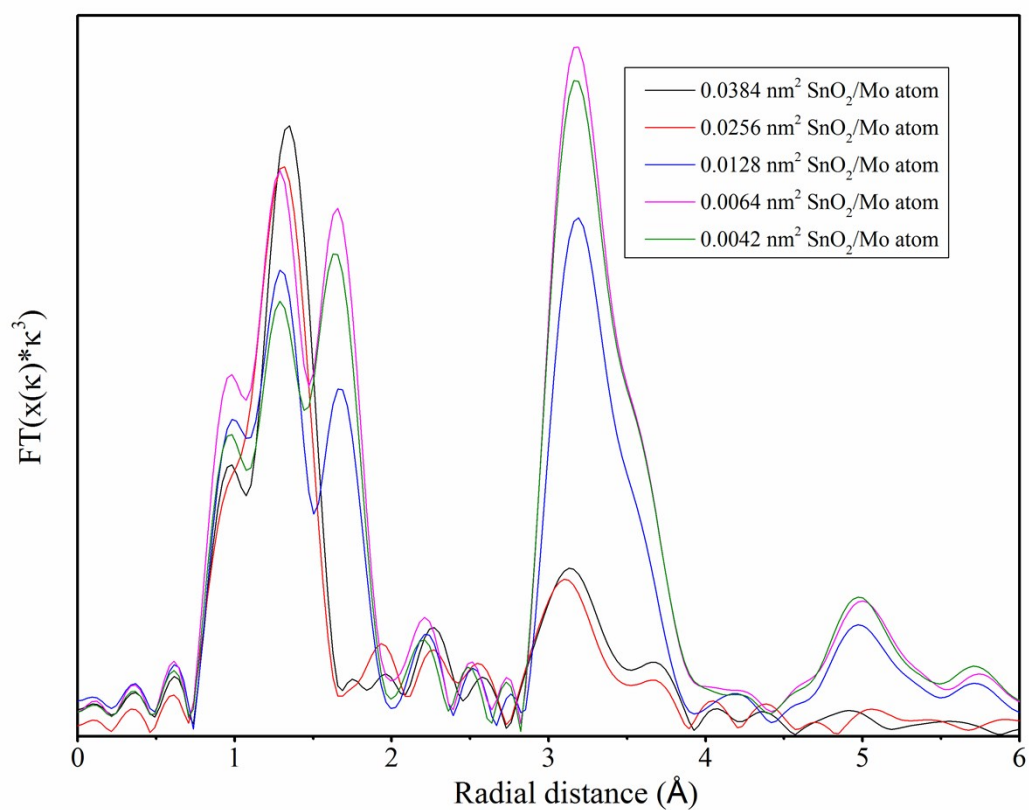


Figure S5-2. Mo K-edge FT($\chi(k) * k^3$) of $\text{MoO}_3\text{-SnO}_2$ catalysts after reaction.

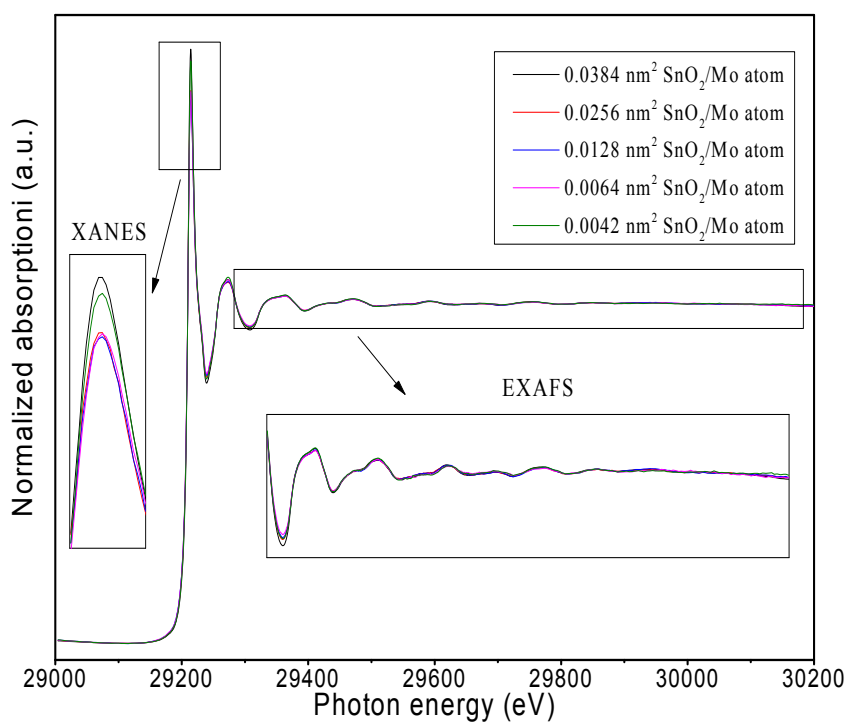


Figure S6-1. Sn K-edge XAFS spectra of $\text{MoO}_3\text{-SnO}_2$ catalysts.

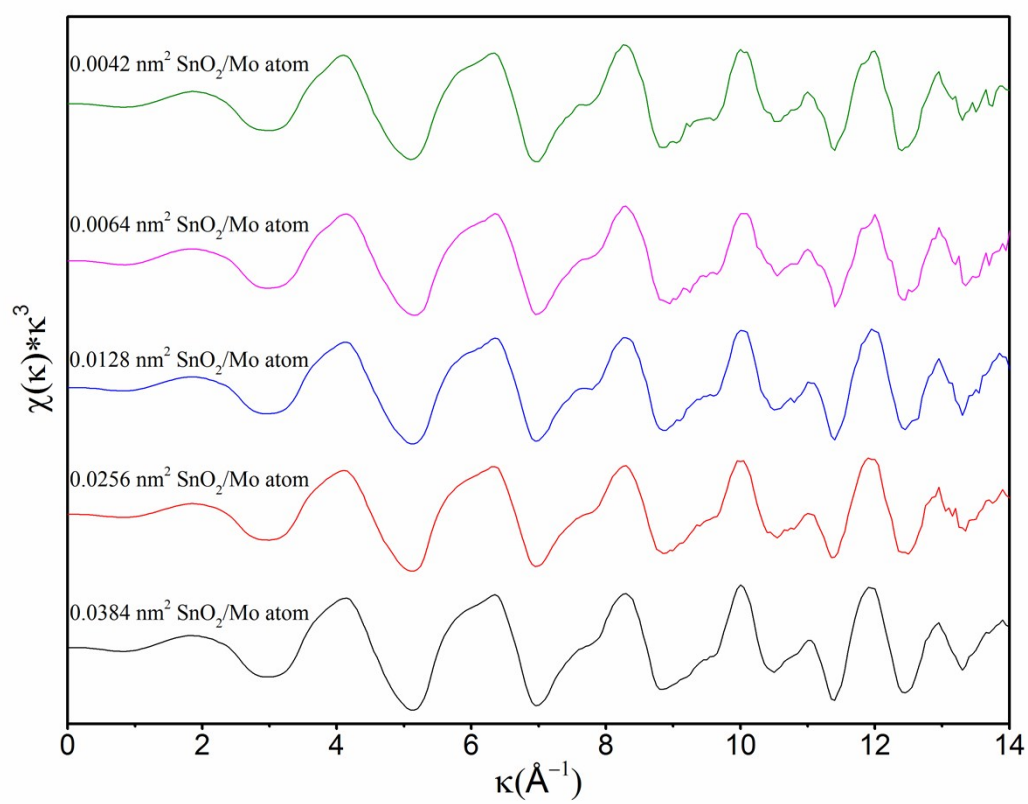


Figure S6-2. Sn K-edge XAFS $\chi(k) \cdot k^3$ of $\text{MoO}_3\text{-SnO}_2$ catalysts.

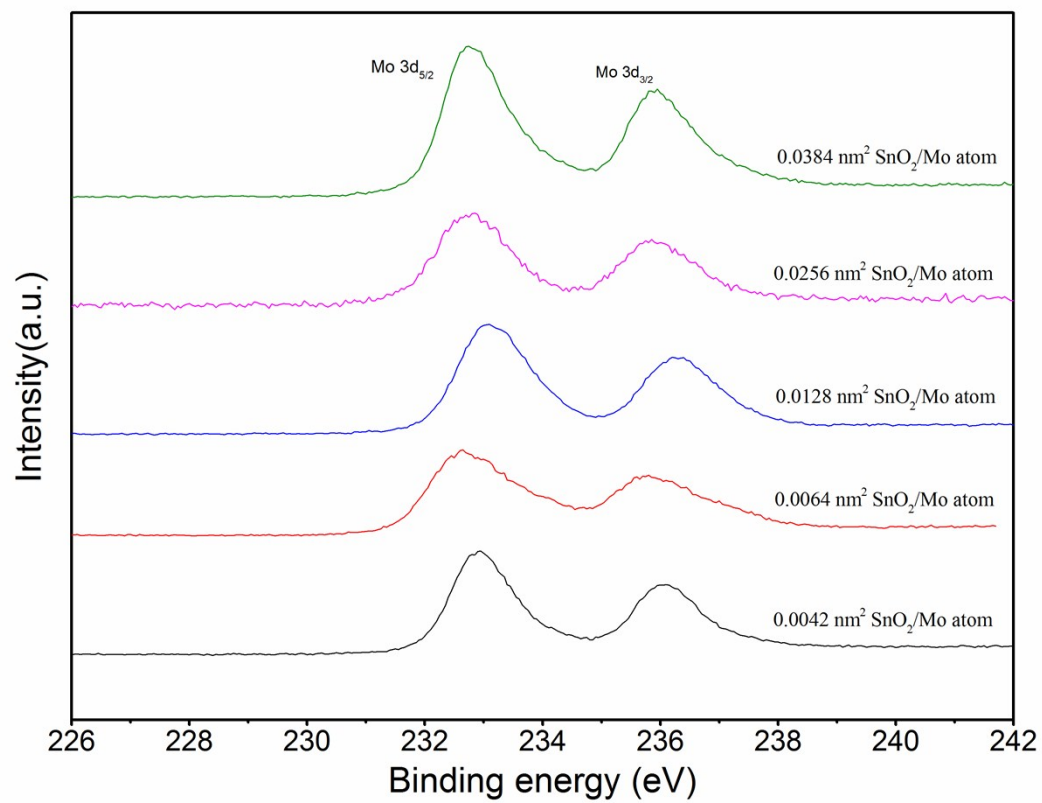


Fig. S7 XPS spectra of different MoO₃-SnO₂ catalysts after reaction

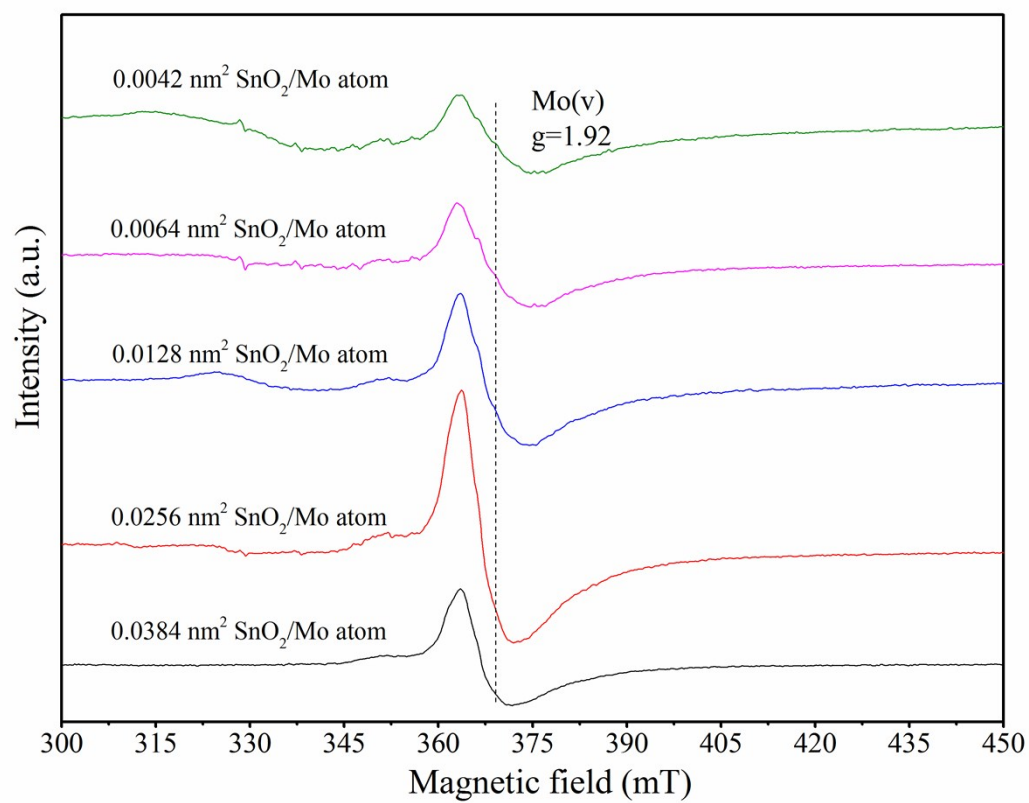


Fig. S8 ESR spectra of different $\text{MoO}_3\text{-SnO}_2$ catalysts after reaction.