

Figure S1. Discharge curve of TiO₂.

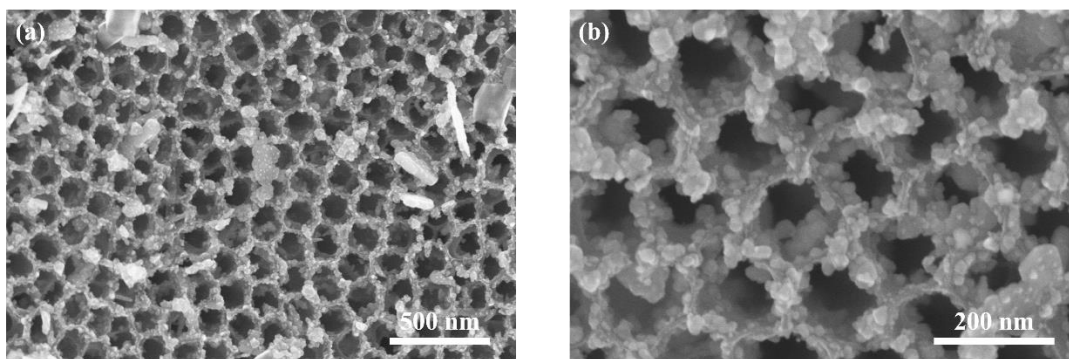


Figure S2. (a, b) The SEM image of 0.01Ag/TiO₂.

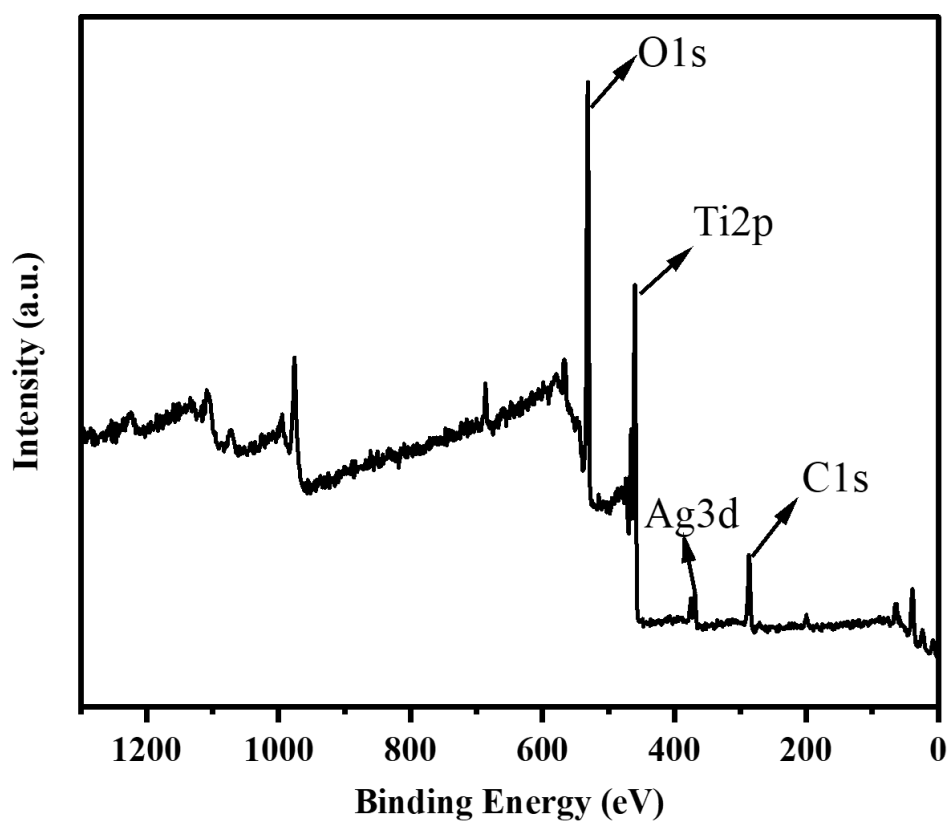


Figure S3. An XPS spectrum of 0.001Ag/TiO_{2-x}.

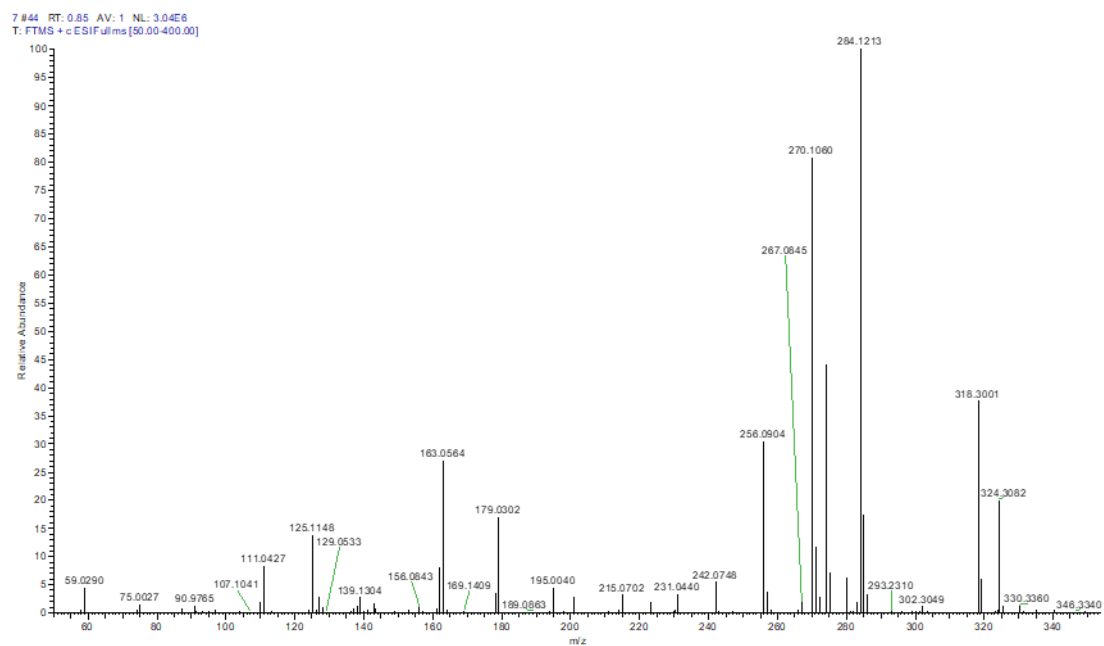


Fig. S4. Full-scan MS spectrum of MB after 30 min photocatalytic reaction by 0.001Ag/TiO_{2-x}.

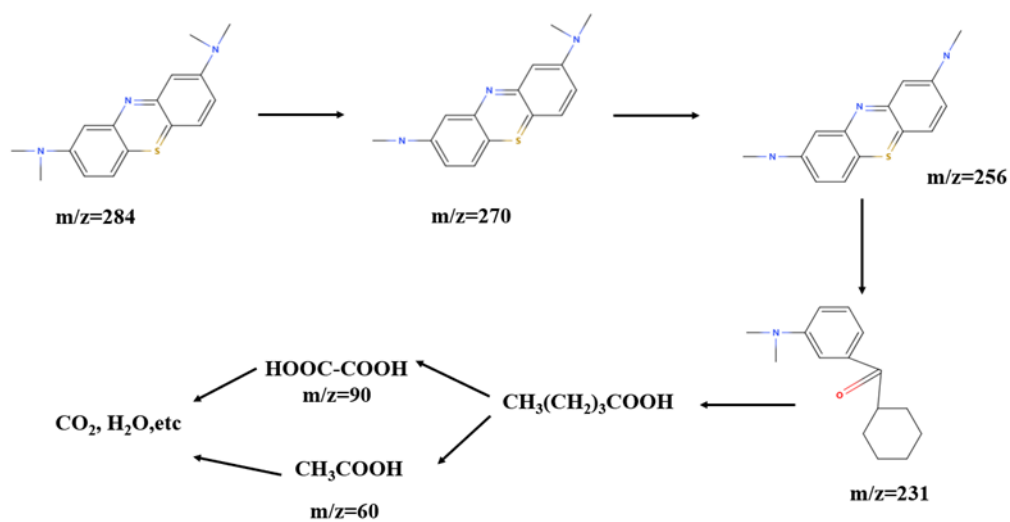


Fig. S5. Pathway of MB degradation by 0.001Ag/TiO_{2-x}.

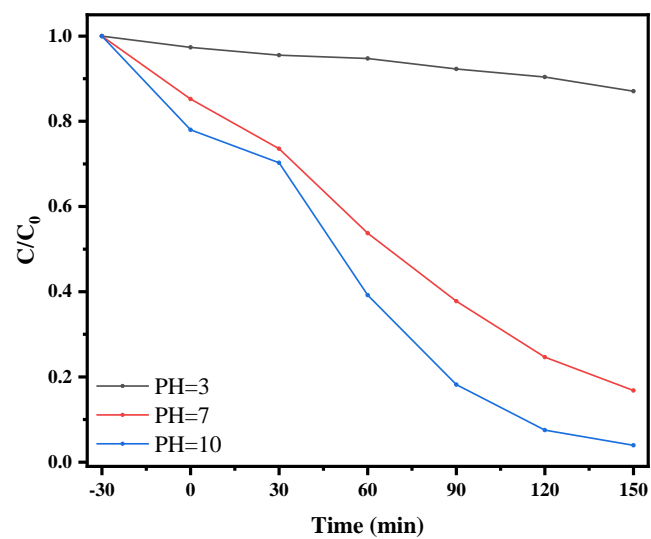


Fig. S6. Effect of solution pH on the performance of 0.001Ag/TiO_{2-x}

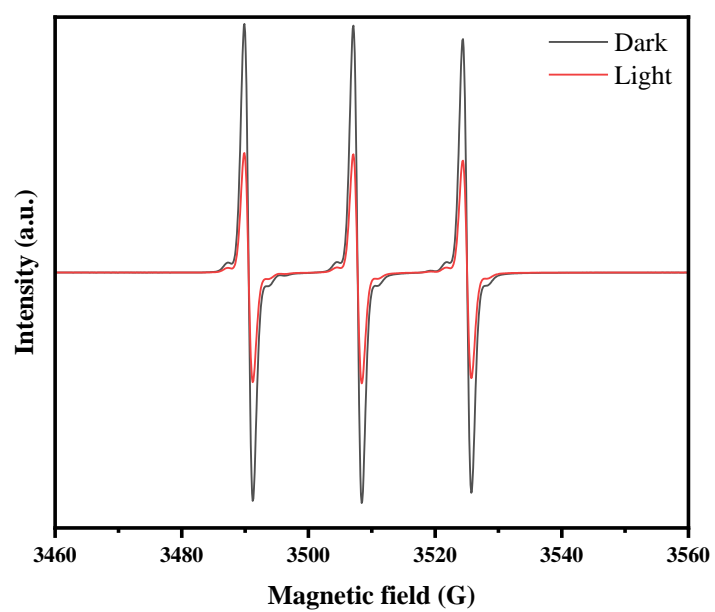


Fig. S7. EPR spectra of 0.001Ag/TiO_{2-x} for h⁺

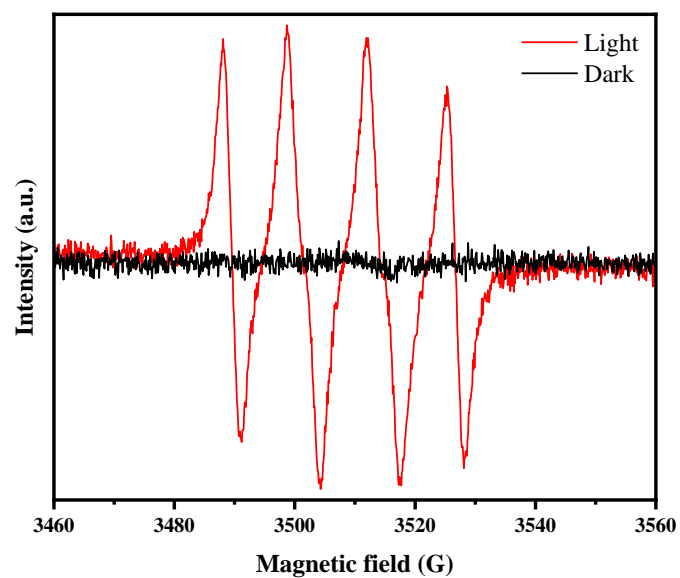


Fig. S8. EPR spectra of 0.001Ag/TiO_{2-x} for •O₂⁻

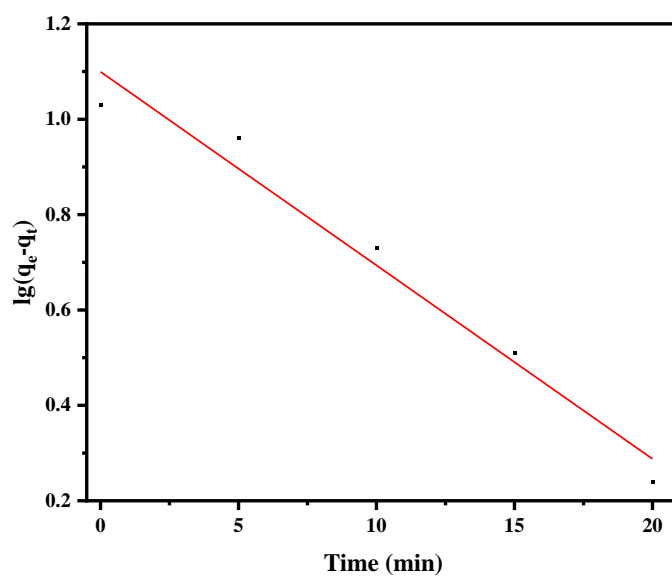


Fig. S9. Linear fitting curves of the pseudo-first-order kinetic model

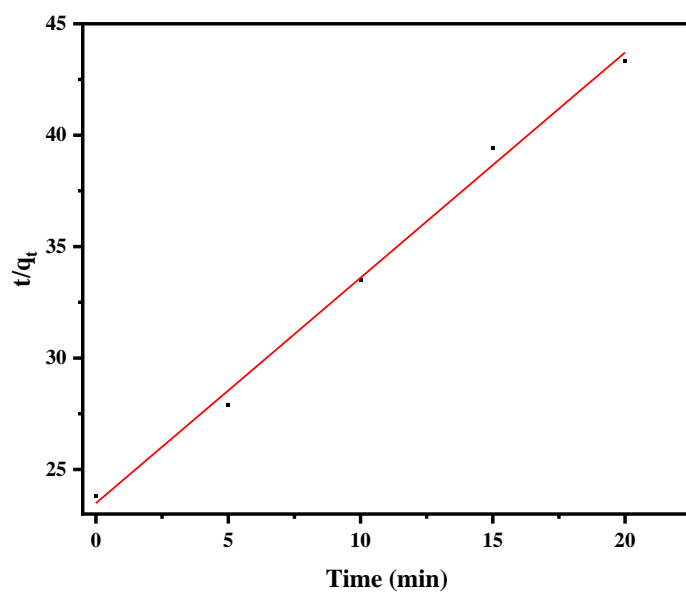


Fig. S10. Linear fitting curves of the pseudo-second-order kinetic model

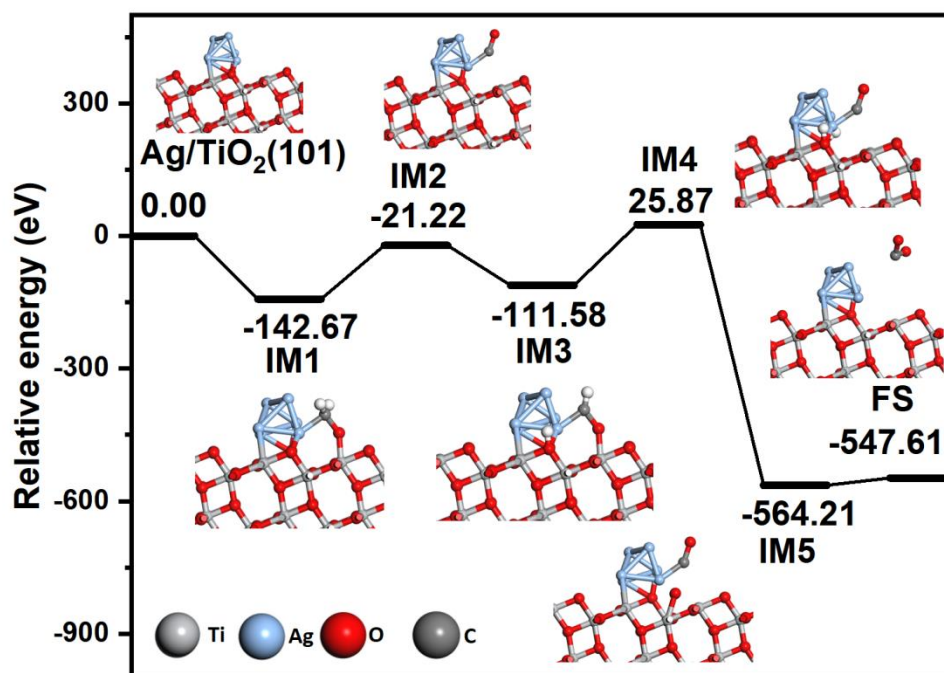


Fig. S11. Energy distribution and optimized structure of HCHO oxidation on 0.001Ag/TiO_{2-x}(101) surface.