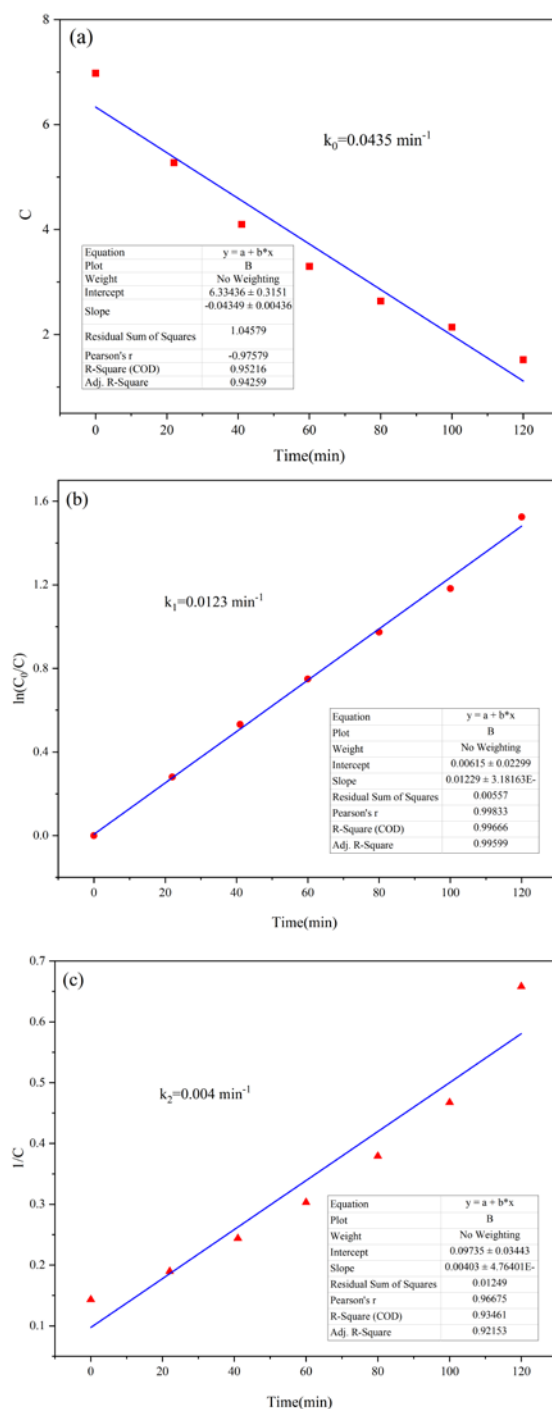
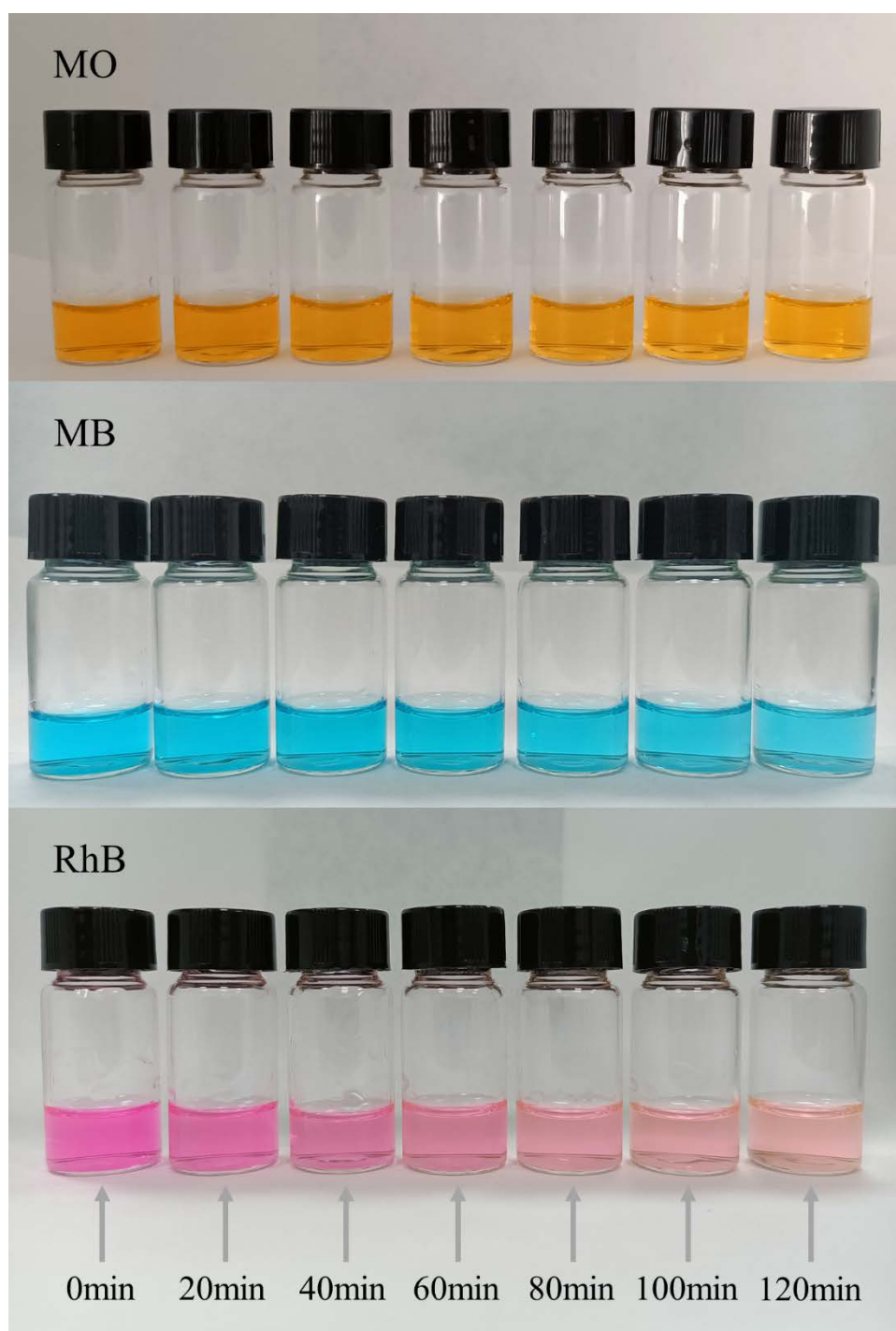


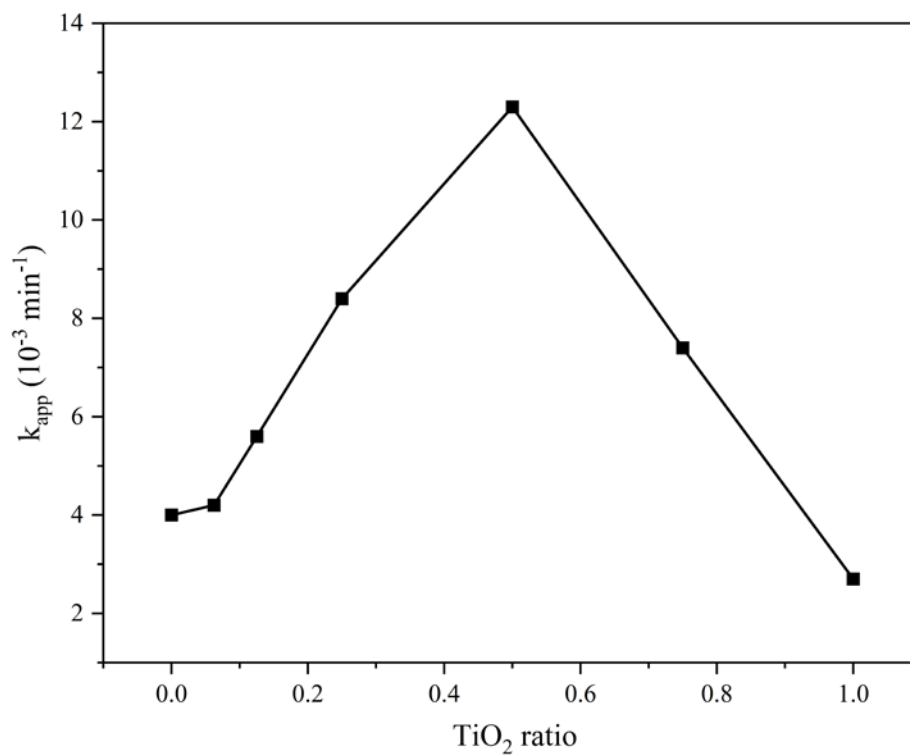
## Supporting materials



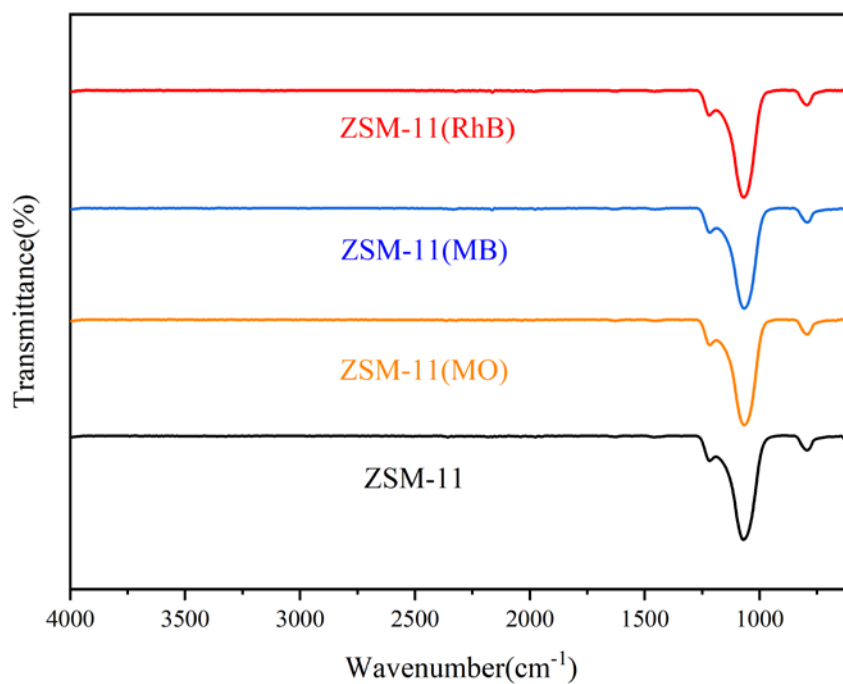
**Fig. S1** Linear regression of experimental data collected from photocatalytic degradation of RhB over 50TZ with pseudo-zero-order (a), pseudo-first-order (b), and pseudo-second-order kinetics (c), while pseudo-first-order showed the most satisfying results.



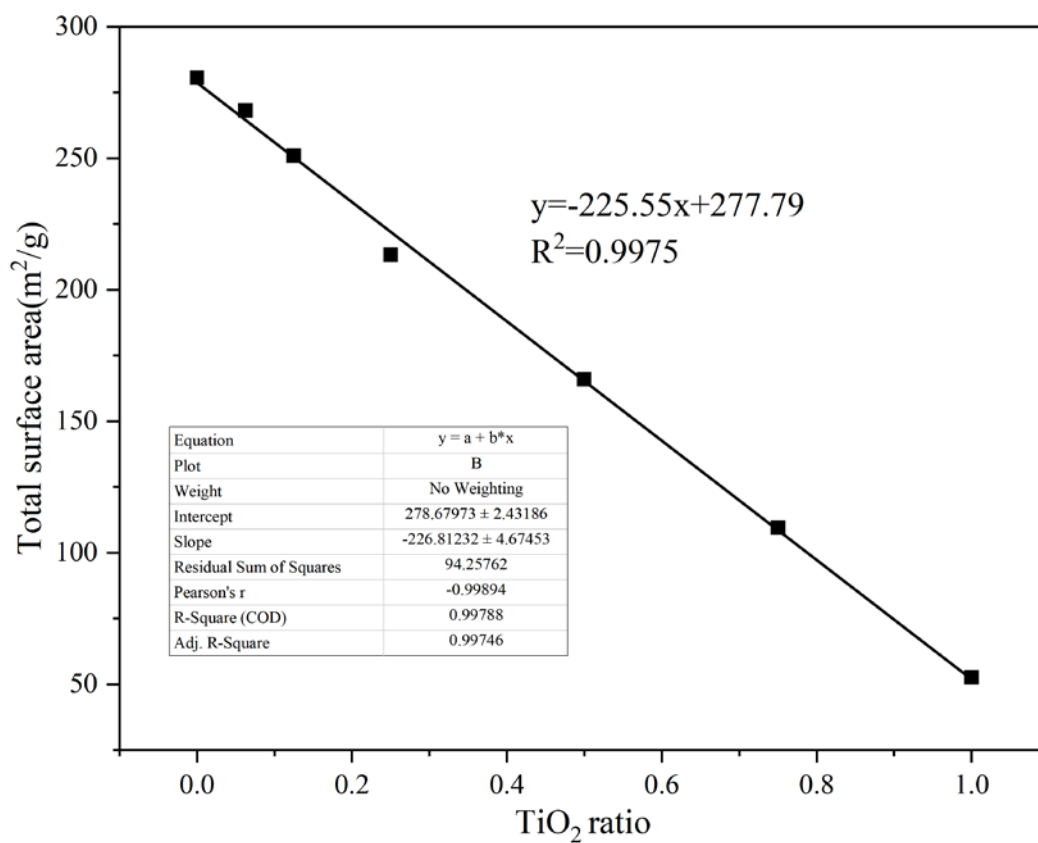
**Fig. S2** Photos of three organic dyes (MO, MB and RhB) in the solution before and after photocatalytic degradation over 50TZ.



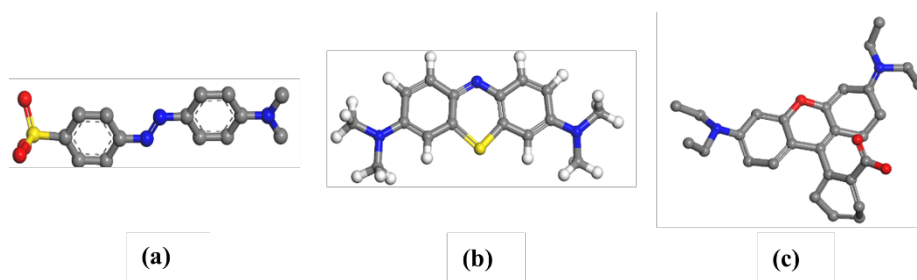
**Fig. S3** The relationship between TiO<sub>2</sub> ratio and reaction performance for photodegradation of RhB over TiO<sub>2</sub>/ZSM-11.



**Fig. S4** FT-IR spectra of pristine ZSM-11 and ZSM-11 with adsorption of MO, MB, and RhB.



**Fig. S5** The relationship between  $\text{TiO}_2$  ratio and surface area of TZ composites.



**Fig. S6** Optimized geometries of MO (a), MB (b), and RhB (c).