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## Supporting Information

Mesoporous (001)- $TiO_2$  nanocrystals with tailoring  $Ti^{3+}$  and surface oxygen vacancies for boosting photocatalytic selective conversion of aromatic alcohols

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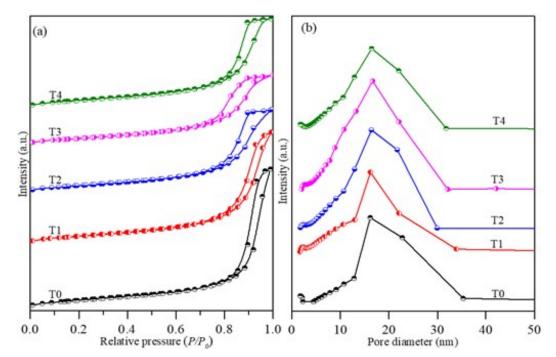
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**Fig. S1.** Photograph of reaction system for photocatalytic selective conversion of aromatic alcohols.



**Fig. S2.**  $N_2$  adsorption-desorption isotherms (a) and pore size distribution curves (b) of different photocatalysts.

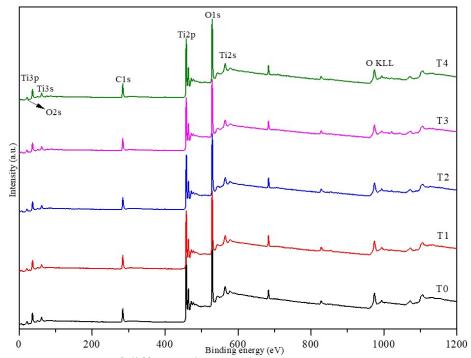


Fig. S3. XPS surveys of different photocatalysts.

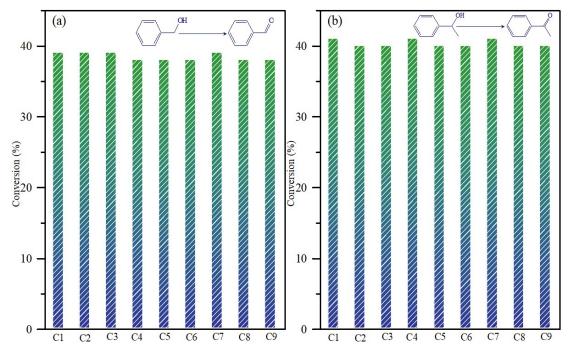
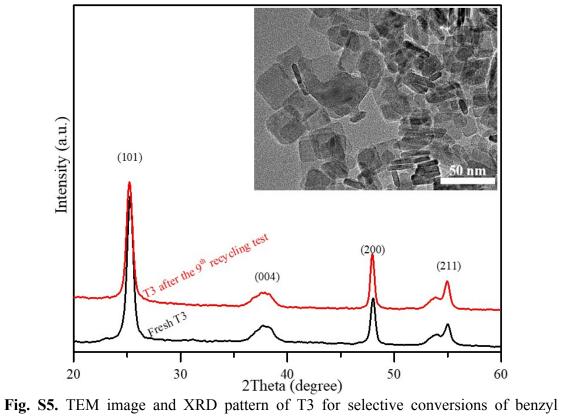


Fig. S4. Recycling test of T3 for selective conversion of benzyl alcohol (a) and 1-phenylethanol (b). The error bar of conversion is  $\pm 1.0$  %.



**Fig. S5.** TEM image and XRD pattern of T3 for selective conversions of benzylalcohol and 1-phenylethanol after the 9<sup>th</sup> recycling test.