

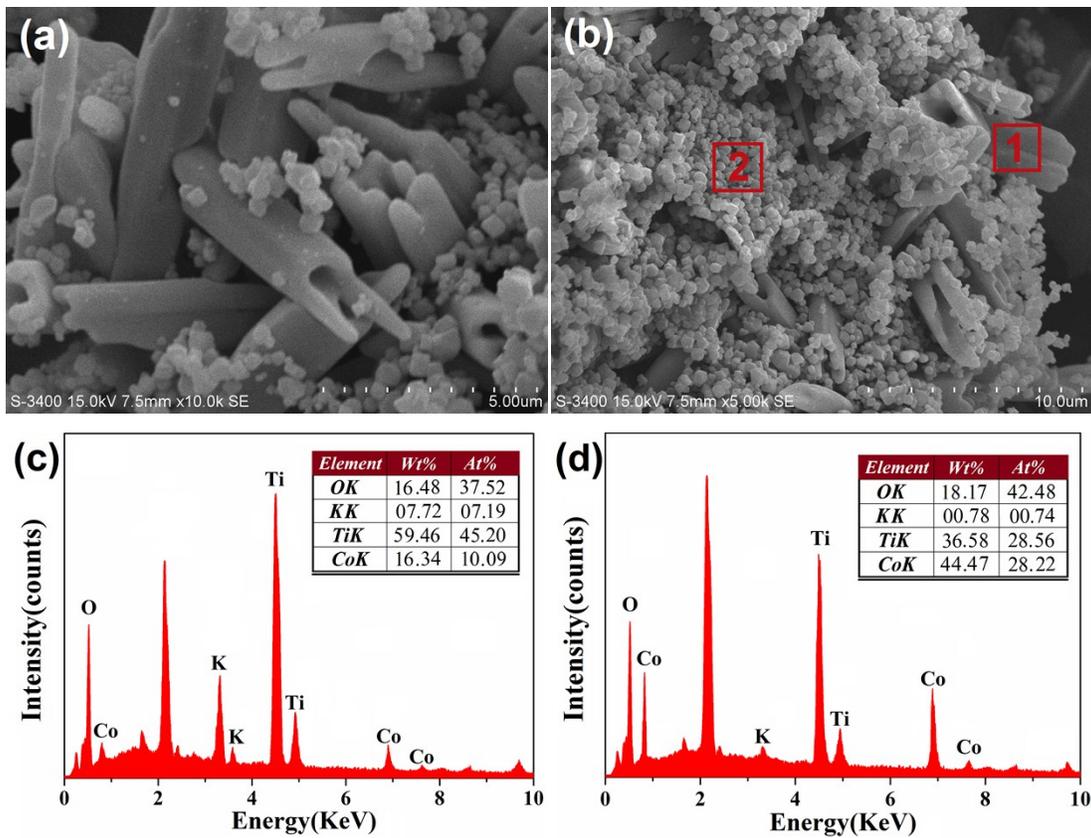
**Electronic Supplementary Information (ESI)**

**Flux growth of single-crystalline  $\text{CoTiO}_3$  polyhedral particles and improved visible-light photocatalytic activity of heterostructured  $\text{CoTiO}_3/\text{g-C}_3\text{N}_4$  composites**

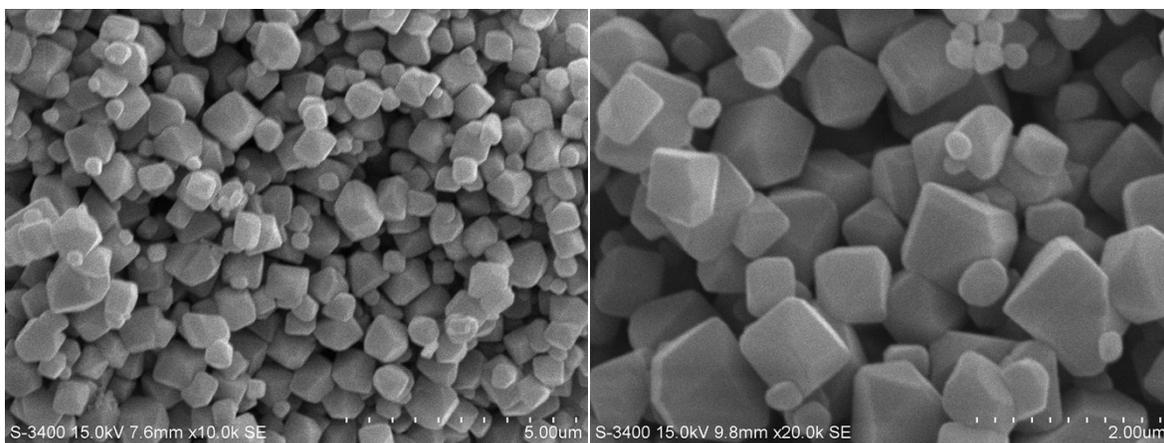
*Qiang Wang, Qingjun Guo, Leping Wang, Bing Li\**

School of Mechanical and Power Engineering, East China University of Science and Technology, 130 Meilong Road, Shanghai 200237, P. R. China.

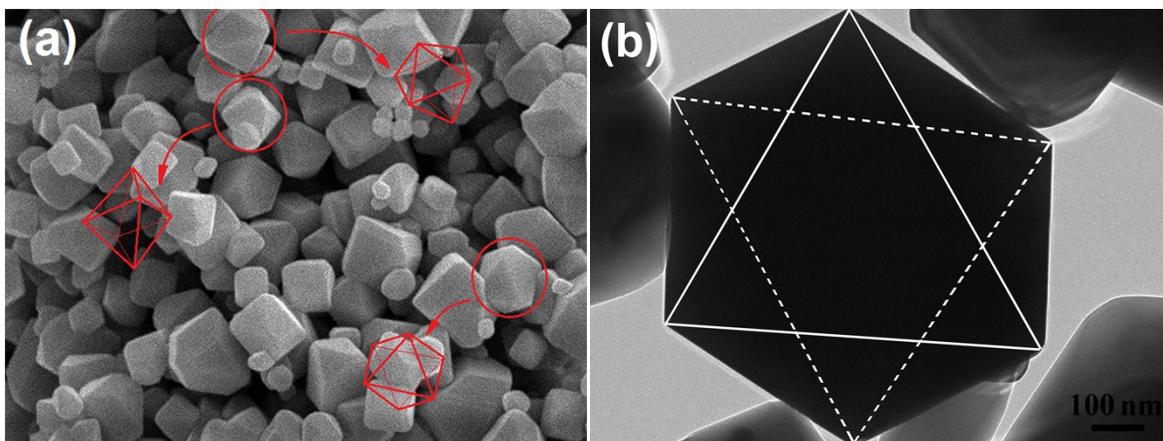
**\*E-mail:** bingli@ecust.edu.cn.



**Fig. S1** (a, b) SEM images of the KCl flux-grown sample; (c, d) EDS analysis recorded at the two areas marked as "1" and "2" respectively in (b) for determining  $\text{CoTiO}_3$  and  $\text{KTi}_8\text{O}_{16.5}$  phases.



**Fig. S2** Typical SEM images of the sample CTO-1.



**Fig. S3** (a) A magnified SEM image of sample CTO-1 obtained from Fig. 2d ; (b) TEM image of sample CTO-1 showing a well-defined  $\text{CoTiO}_3$  octahedral particle.