## Efficient Charge Carrier Separation in L-Alanine Acids Derived N-TiO<sub>2</sub> Nanospheres: The Role of Oxygen Vacancies in Tetrahedral Ti<sup>4+</sup> Sites

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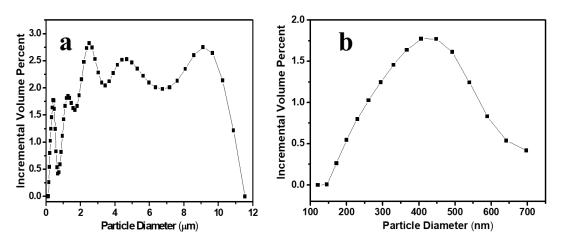
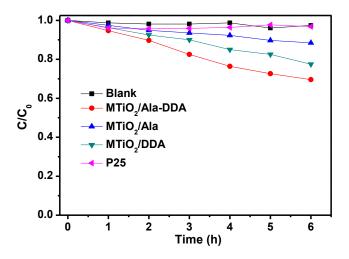


Figure 1. Size distributions of MTiO<sub>2</sub>/Ala-DDA.

Particle size distribution measurements were conducted at environmental atmosphere with a High Definition Digital Particle Size Analyzer (Saturn DigiSizer II 5205, Micromeritics). Before test, appropriate amount of sample was ultrasonically dispersed in 20 mL deionized water for 20 min, and then a certain amount of dispersion was taken for particle size analyze.



**Figure 2.** A comparison of photocatalytic degradation of phenol under visible light (The initial concentration of phenol was 5 ppm (50 mL) and the amount of the photocatalyst used was 25 mg).