



Defective black TiO₂: effects of annealing atmospheres and urea addition on the properties and photocatalytic activities

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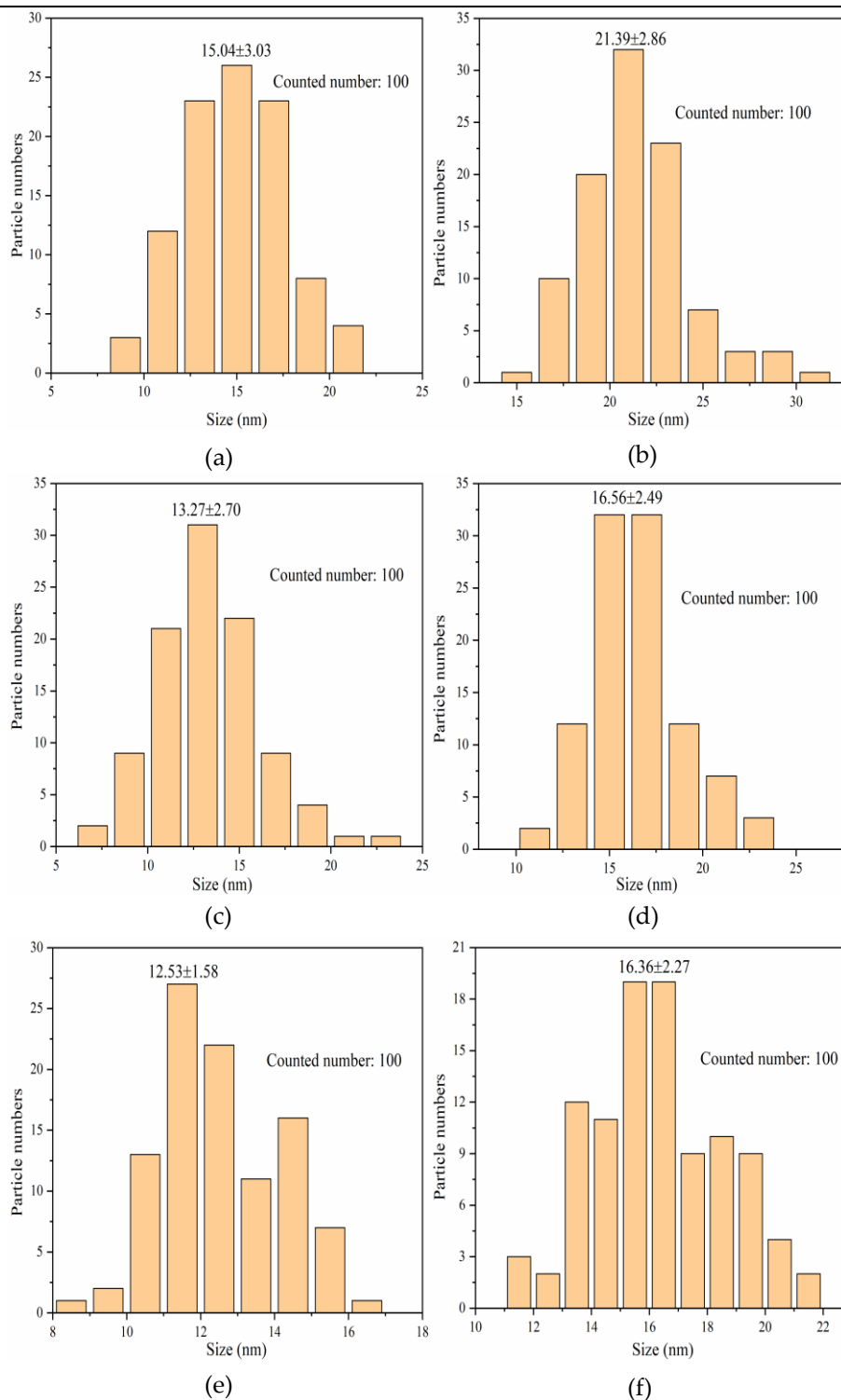


Figure S1. Particle size distribution of (a) T-V; (b) U-T-V; (c) T-He; (d) U-T-He; (e) T-N₂; and (f) U-T-N₂.

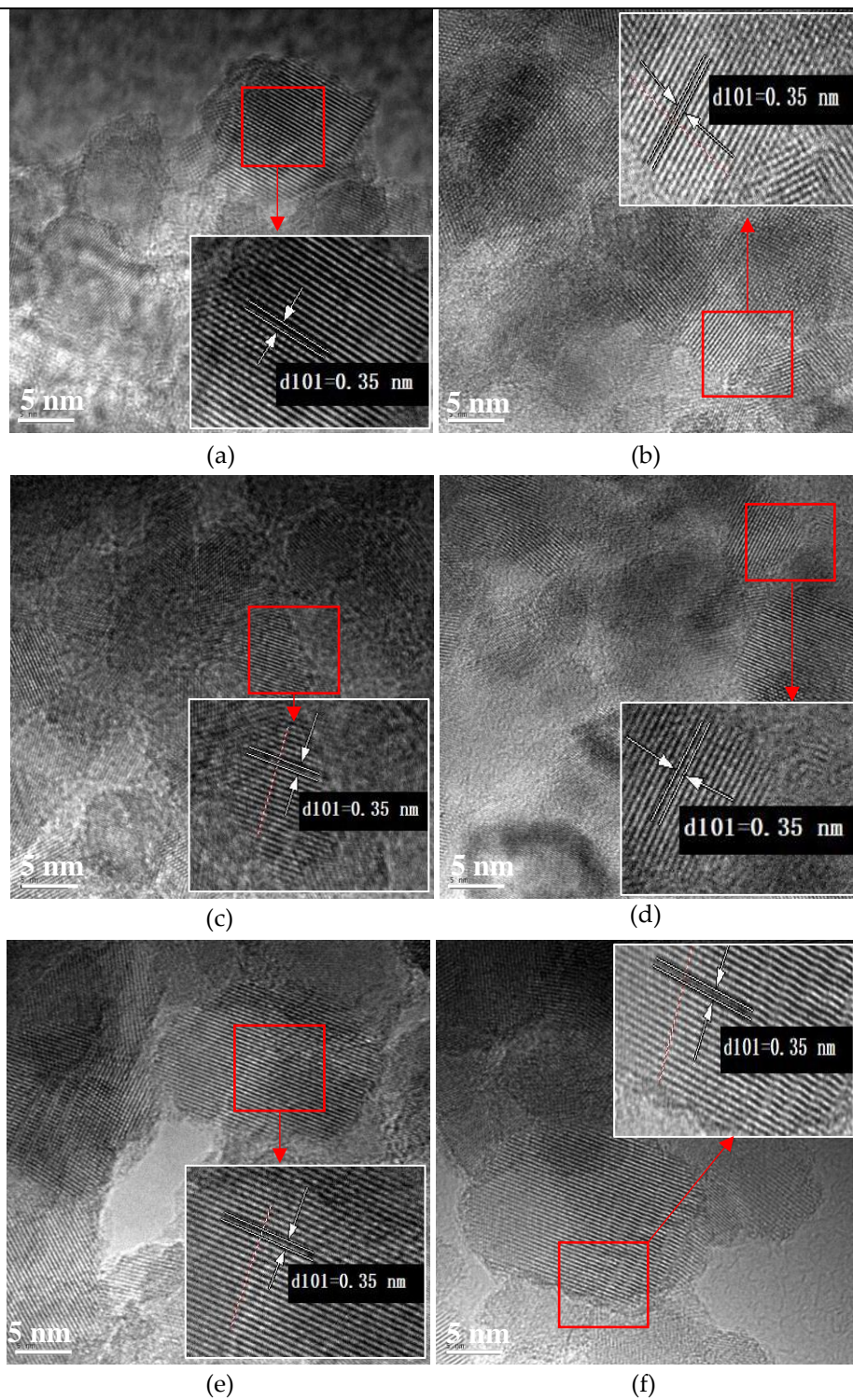
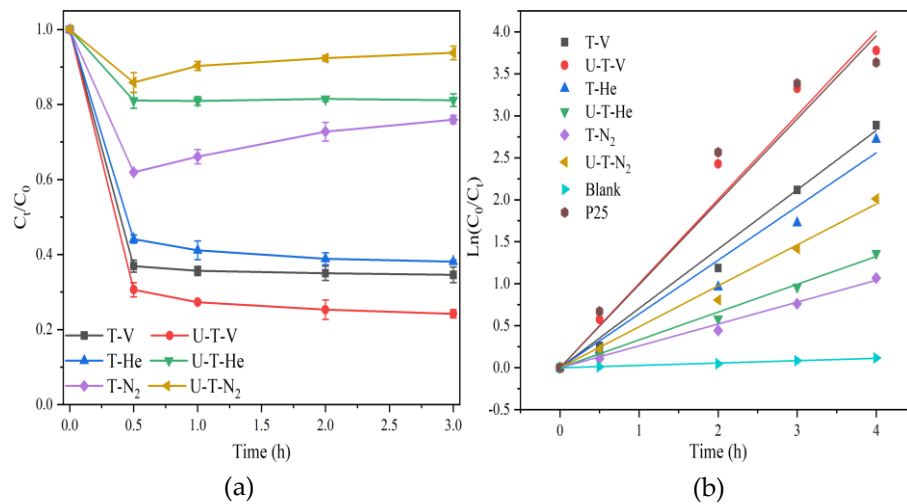


Figure S2. HR-TEM images showing lattice fringes of (a) T-V; (b) U-T-V; (c) T-He; (d) U-T-He; (e) T-N₂; and (f) U-T-N₂.

**Table S1.** Element contents (wt%) of the as-prepared TiO₂ samples by SEM-EDS.

Samples Elements	T-V	U-T-V	T-He	U-T-He	T-N₂	U-T-N₂
C	2.02	3.53	2.91	2.45	2.48	1.75
N	0.91	0.86	1.40	1.26	0.96	1.79
O	21.62	26.83	28.56	24.99	23.50	27.21
Ti	75.45	68.77	67.13	71.30	73.06	69.25

**Figure S3.** (a) The adsorption capacity of as-prepared samples towards MB pollutant; (b) The fitting curves of $\ln(C_0/C_t)$ versus Time (h).