

1 **Dynamic Growth of Rhombic Dodecahedral Cu<sub>2</sub>O Crystals**  
2 **Controlled by Reaction Temperature and Their Size-dependent**  
3 **Photocatalytic Performances**

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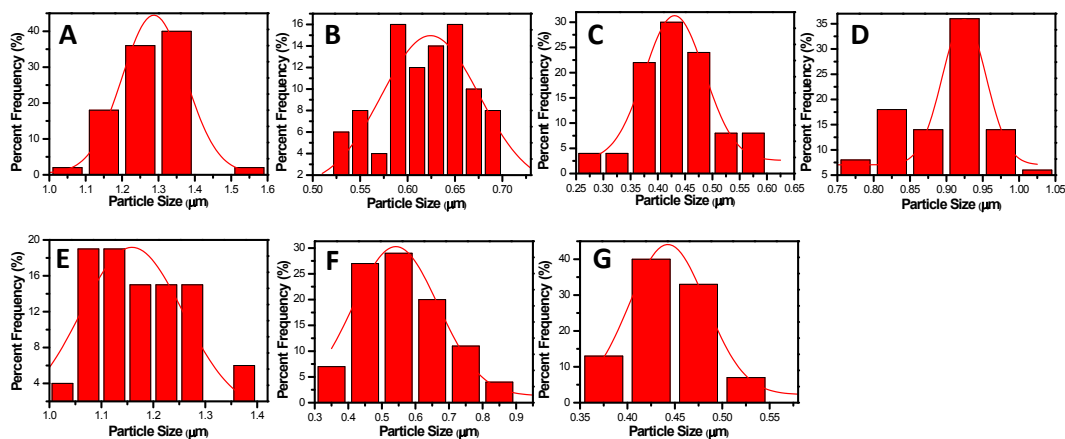
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18 **Figure S1.** Size distribution of the Cu<sub>2</sub>O nanocrystals synthesized with various

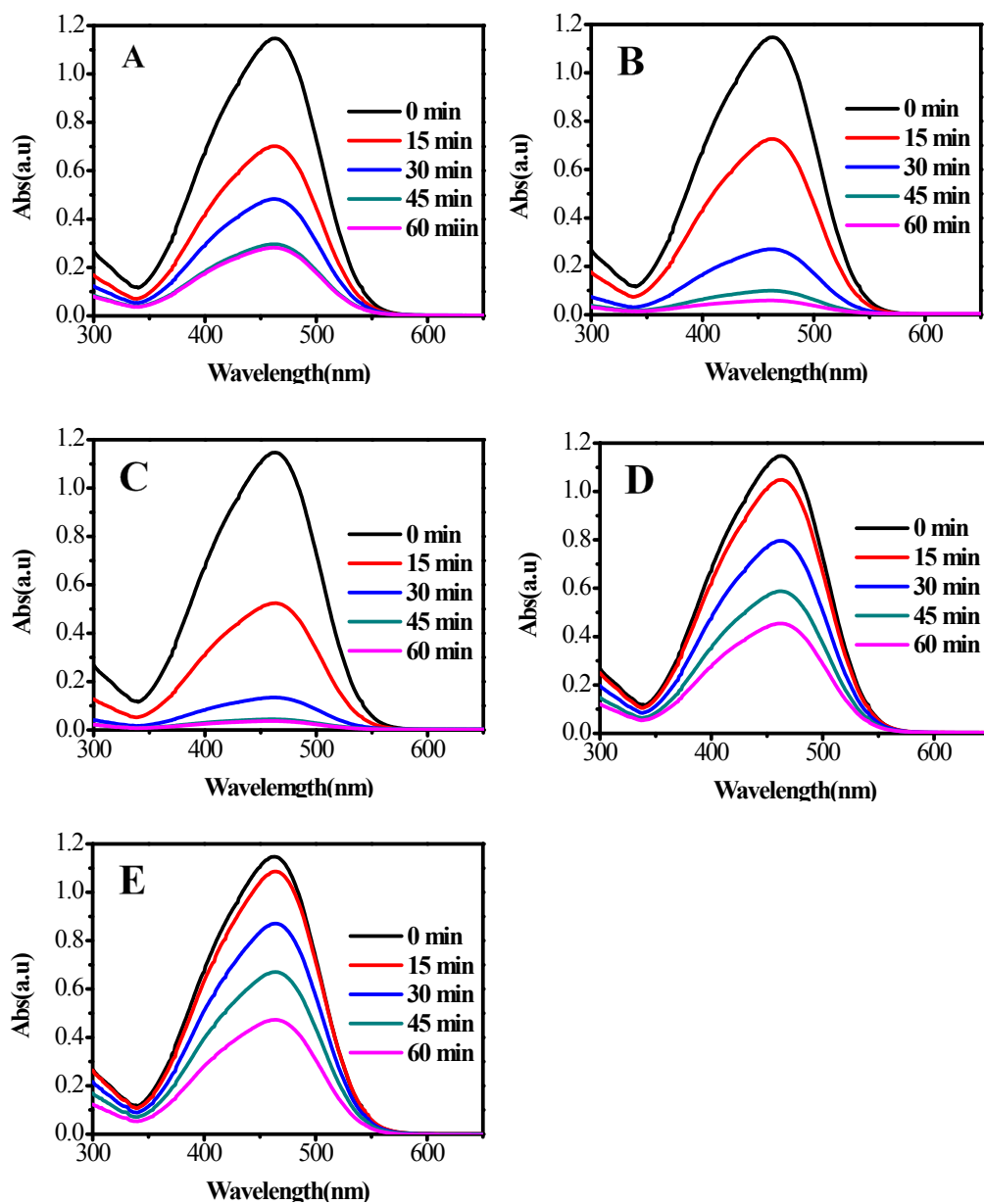
19 temperatures: (a) TRD-40, (b) RD-50, (c) RD-60, (d) RD-70, (e) RD-80, (f) RD-90

20 and (g) RD-100.

21 **Table S1.** Average particle sizes and relative standard deviations of the as-obtained

22 Cu<sub>2</sub>O crystals.

Sample	Average Particle Size (μm)	Relative Standard Deviation (%)
TRD-40	1.29	0.02
RD-50	0.62	0.01
RD-60	0.43	0.01
RD-70	0.92	0.01
RD-80	1.16	0.02
RD-90	0.54	0.02
RD-100	0.44	0.004

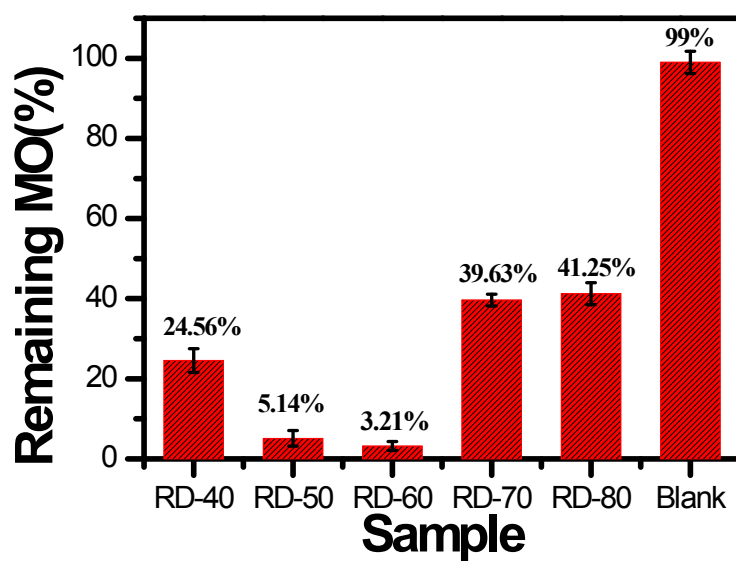


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24 **Figure S2.** UV-vis absorption spectra of 15 mg/L MO solution as a function of  
 25 irradiation time using (A) **TRD-40**, (B) **RD-50**, (C) **RD-60**, (D) **RD-70** and (E) **RD-**  
 26 **80**.

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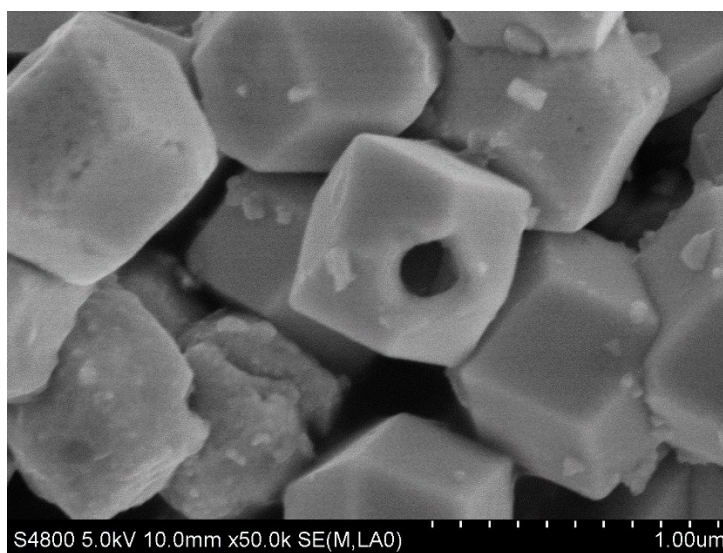
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30 **Figure S3.** Remaining MO after photodegradation of MO by the obtained  $\text{Cu}_2\text{O}$   
 31 photocatalysts.

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34 **Figure S4.** FESEM image of **RD-60**  $\text{Cu}_2\text{O}$  photocatalysts after five cycles of  
 35 photocatalytic reactions.

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