Supplementary Information

Photocatalytic degradation of fluoroquinolone antibiotics in solution

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Gráfico, Gráfico de dispersión

Descripción generada automáticamente

**Figure S1.** Evaluation of the initial concentration of CFX (a) and LFX (b) on the catalytic efficiency of 10%Au@ZnONPs, 10%Au@ZnONPs-3%rGO, and 10%Au@ZnONPs-3%rGO-3%gC3N4 in the photodegradation reaction.

Gráfico, Gráfico de dispersión

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**Figure S2.** Evaluation of the initial concentration of 10%Au@ZnONPs, 10%Au@ZnONPs-3%rGO, and 10%Au@ZnONPs-3%rGO-3%gC3N4 on the efficiency of the photodegradation reaction of CFX (a) and LFX (b).

Gráfico, Gráfico de dispersión

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**Figure S3.** Pseudo-first order kinetics of photodegradation of CFX (a) and LFX (b) using different catalysts.

Gráfico, Gráfico de dispersión

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**Figure S4.** Control experiments for 10%Au@ZnONPs-3%rGO-3%gC3N4 with CFX (a) and LFX (b), under visible radiation.

Imagen que contiene Diagrama

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**Figure S5.** Recyclability of 10%Au@ZnONPs-3%rGO-3%gC3N4 after five consecutive catalytic cycles of photodegradation of CFX (a) and LFX (b) under visible radiation.

Gráfico, Gráfico de barras

Descripción generada automáticamente

**Figure S6.** Photocatalytic activity of 10%Au@ZnONPs-3%rGO-3%gC3N4 on the degradation of CFX (a) and LFX (b) in the presence of various scavengers under visible radiation.

**Table S1.** The pseudo-first-order kinetics constants for the photodegradation of CFX and LFX.

|  |  |  |
| --- | --- | --- |
| **Material** | Apparent rate CFX1 | Apparent rate LFX1 |

|  |  |
| --- | --- |
| 1%Au@ZnONPs  5%Au@ZnONPs  10%Au@ZnONPs  1%Au@ZnONPs-3%rGO  5%Au@ZnONPs-3%rGO  10%Au@ZnONPs-3%rGO  1%Au@ZnONPs-3%rGO-3%gC3N4  5%Au@ZnONPs-3%rGO-3%gC3N4  10%Au@ZnONPs-3%rGO-3%gC3N4 | 0.008 0.004  0.012 0.006  0.026 0.009  0.009 0.011  0.013 0.016  0.024 0.019  0.018 0.014  0.022 0.021  0.028 0.023 |

1(*k*, min-1)