Supplementary Information

3D Au-decorated Bi₂MoO₆ nanosheet/TiO₂ nanotube arrays heterostructure with enhanced UV and visible-light photocatalytic activity for organic pollutants

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Figure S1. Bi₂MoO₆@TiO₂ NTAs prepared by a solvothermal process at 160°C with various durations: 2 h (a), 4 h (b), 6 h (c) and 8 h (d).
Figure S2. The PDA modified Bi$_2$MoO$_6$@TiO$_2$ NTAs immersed in various concentration of chloroauric acid solution for 2 h: 0.4 mM (a), 0.8 mM (b) and 1.6 mM (c).

Figure S3. UV-DRS absorption spectra of the pure TiO$_2$ NTAs and the as-prepared Bi$_2$MoO$_6$@TiO$_2$ NTAs with different durations (2, 4, 6 and 8 h) via a solvothermal process under 160$^{\circ}$C (a); and the photocurrent responses of the samples under visible light irradiation or not (b).

Figure S4. Photocurrent responses of the pure TiO$_2$ NTAs and Au-decorated Bi$_2$MoO$_6$@TiO$_2$ NTAs-6 composite with different concentration of Au$^{3+}$ (0.2, 0.4, 0.8 and 1.6 mM) under visible light irradiation or not (a); and the electrochemical impedance spectroscopy (EIS) Nyquist plot of the samples in dark (b).
Figure S5. The effect of UV-light irradiation duration on the photo-degradation of phenol (a) and BPA (b) by using Au/Bi₂MoO₆@TiO₂ NTAs photocatalyst.