Electronic Supplementary Information

Cube–like Ag/AgCl fabricated *via* a photoirradiation method and their substantially boosted plasmonic photocatalytic reactivity by an oxidation–chloridization treatment

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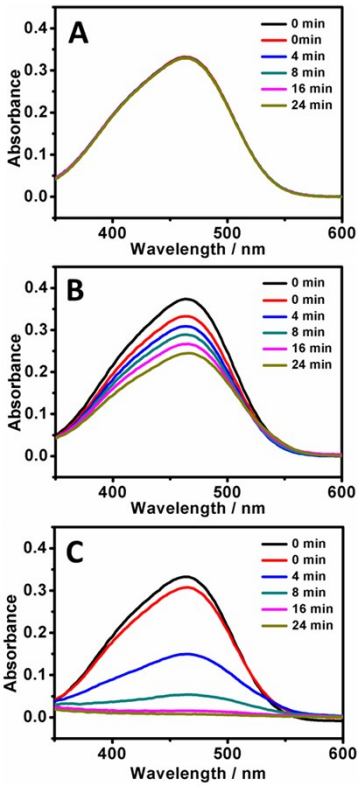

Fig. S1 The typical real–time absorption spectra of MO molecules during the photodegradation process over our Ag/AgCl–based plasmonic structures under visible–light irradiations. Panel A: a blank experiment, wherein no catalyst is used. Panel B: the pristine Ag/AgCl structures are used as the photocatalysts. Panel C: the oxidation–chloridization–treated Ag/AgCl species are employed as the photocatalysts. The black and red curves marked as 0 min are the absorption spectra detected from the original MO solution before (black) and after (red) the dark adsorption experiment, respectively.

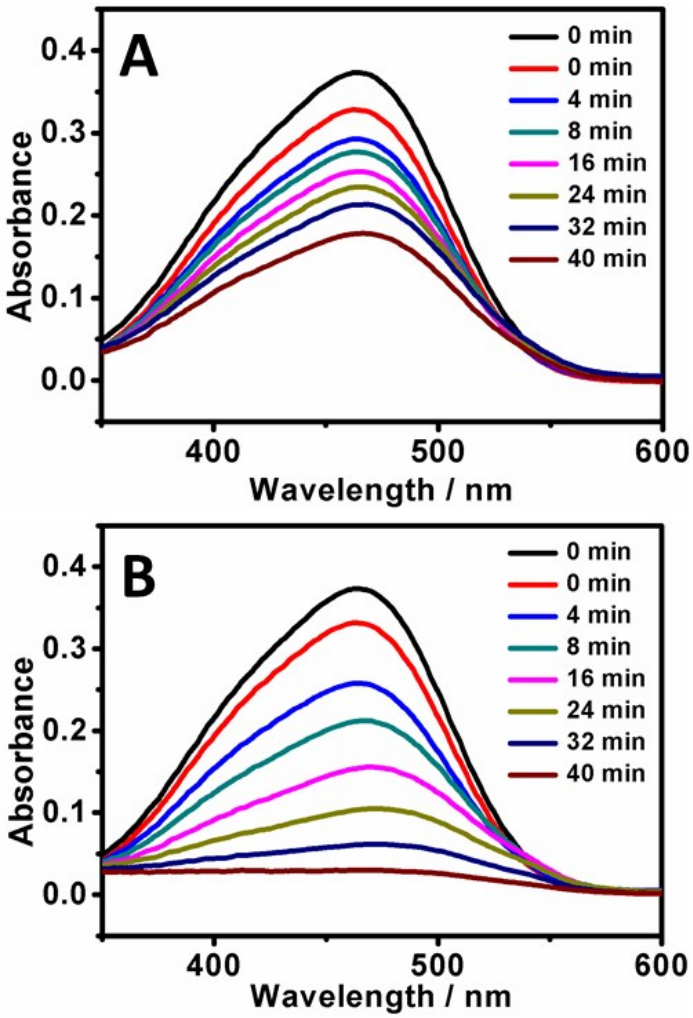

Fig. S2 The typical real–time absorption spectra of MO molecules during the photodegradation process over our Ag/AgCl–based plasmonic structures under UV–light (λ = 365 nm) irradiations. Panel A: the pristine Ag/AgCl structures are used as the photocatalysts. Panel B: the oxidation–chloridization–treated Ag/AgCl species are employed as the photocatalysts. The black and red curves marked as 0 min are the absorption spectra detected from the original MO solution before (black) and after (red) the dark adsorption experiment, respectively.

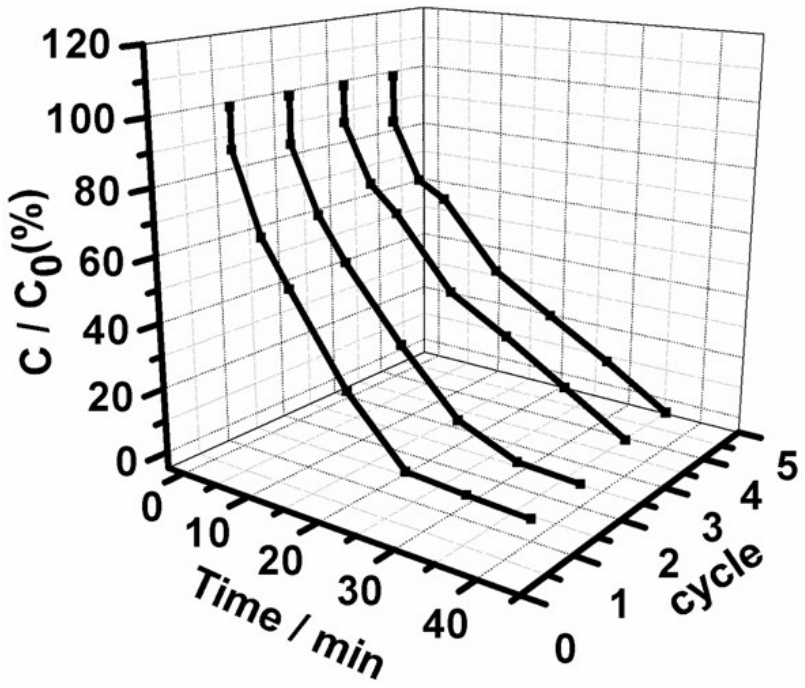

Fig. S3 The consecutive cycling photocatalytic behaviors of the oxidation–chloridization–treated Ag/AgCl structures towards the photodegradation of MO molecules under visible–light irradiation.