Supplementary Information

Synthesis, characterization and application of TiO₂/Ag recyclable SERS substrates

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Fig. S1. STEM images of (a) S_{a1} (b) S_{a2} (c, d) S_{a3} and (d) the corresponding EDS mapping of S_{a3}

SERS spectra acquired per 20 min were adopted to track the process of self-cleaning of RB in Fig S2, which further indicated that the TiO_2/Ag nanocomposites acted as excellent SERS self-cleaning substrates.



Fig. S2. SERS spectra of RB acquired per 20 min after UV-visible irration on S_{r3} (a) 0 min (b) 20 min (c) 40 min (d) 60 min.



Fig. S3. The photo of photocurrent experiment.