Electronic Supplementary Information

High-efficiency water oxidation and energy storage utilizing various reversible redox mediators under visible light over surface-modified WO_3

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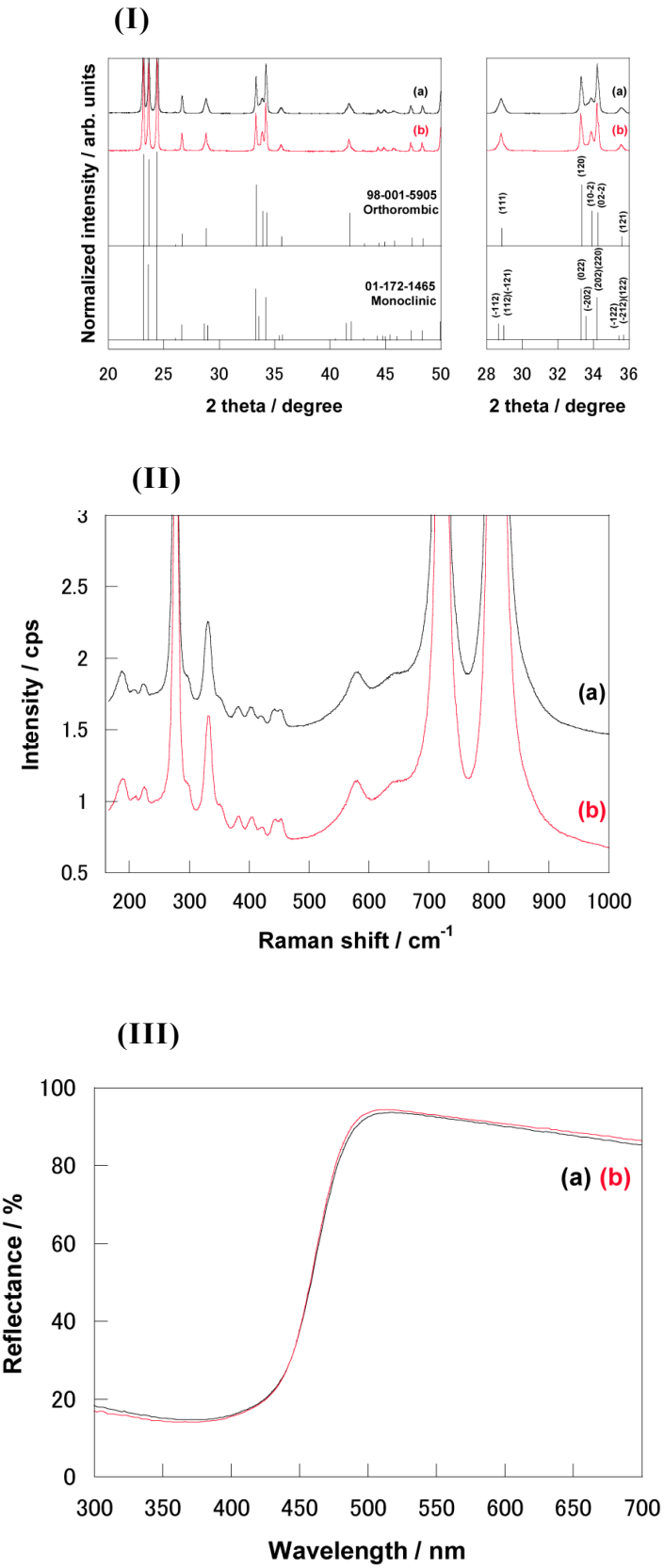

Figure S1 (I) XRD patterns, (II) Raman spectra, and (III) reflectance spectra of (a) WO_3 and (b) Cs-WO_3.

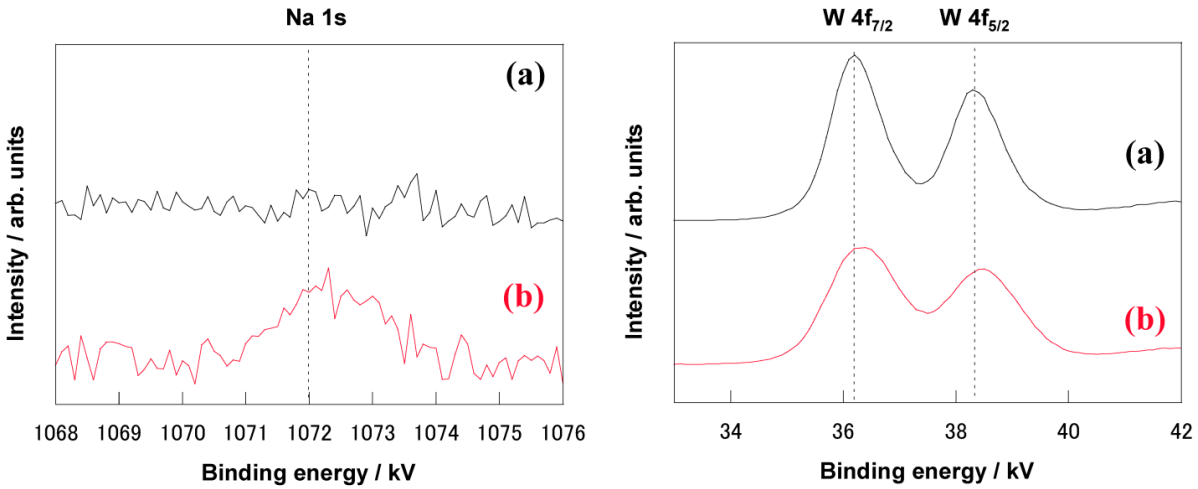

Figure S2 XPS spectra of (a) WO_3 and (b) Cs-WO_3 after stirring treatment in 1M NaCl solution.

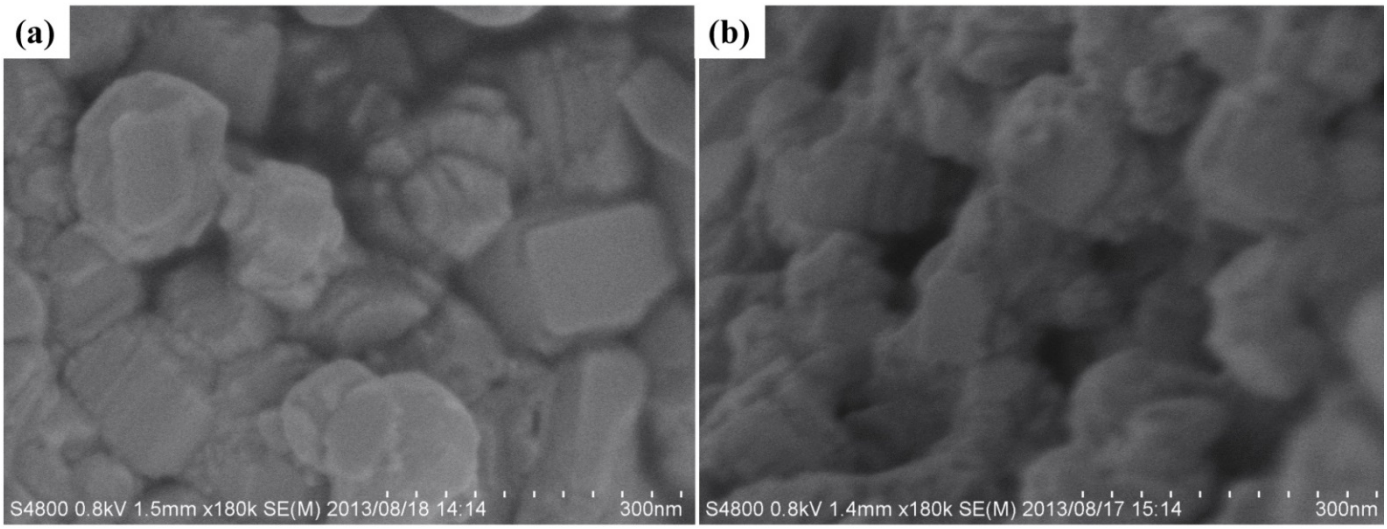

Figure S3 SEM images of H-Cs-WO_3 (a) with and (b) without thermal treatment at 673 K for 30 min.

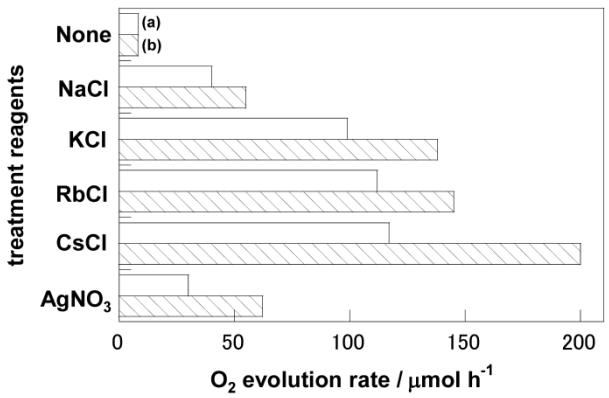

Figure S4 Reaction rates for water oxidation over WO_3 photocatalysts treated with various metal salt solutions. Stirring treatment was conducted with (a) water and (b) $FeSO_4$ solution.