Supporting information for: Flux-mediated doping of SrTiO₃ photocatalysts for efficient overall water splitting

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Figure S1: Diffuse reflectance spectra and Tauc plots of (a) STO(pristine) and (b) STO(flux-Al).



Figure S2: Dependence of the water splitting activity of STO(flux-Al) on light intensity. Reaction conditions: Catalyst, 0.1 g; Cocatalyst, $Rh_{2-y}Cr_yO_3$ (Rh 0.3 wt%, Cr 0.3 wt%); Reaction solution, 100 ml H₂O; Light source, 450 W high-pressure Hg lamp ($\lambda = 360$ nm, FWHM= 10 nm).



Figure S3: XRD patterns of STO(flux-Al) treated at (a) 900 °C, (b) 1000 °C, and (d) 1100 °C.



Figure S4: XRD patterns of (a) 0.1%Al-, (b) 1%Al-, and (c) 10%Al-STO(flux-Y).



Figure S5: SEM images of (a) 0.1%Al-STO(flux-Y), (b) 1%Al-STO(flux-Y), and (c) 10%Al-STO(flux-Al).



Figure S6: XRD patterns of (a) 0.1%Al-, (b) 1%Al-, (c) 5%Al-, 10%Al-STO(ssr-Y).



Figure S7: SEM images of (a) 0.1% Al-, (b) 1% Al-, (c) 10% Al-STO(ssr-Y).