## Enhanced photocatalytic water splitting with surface defective $SrTiO_3$ nanocrystals

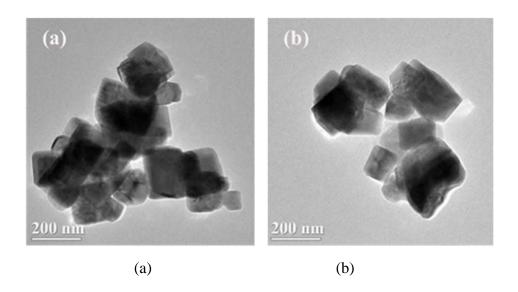


Fig. S1 TEM images

(a) STO; (b) STO-350

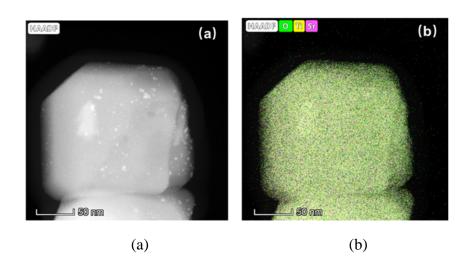


Fig. S2 All elementals mapping images of STO-350

(a) HAADF image; (b) O, Ti and Sr elementals mapping images

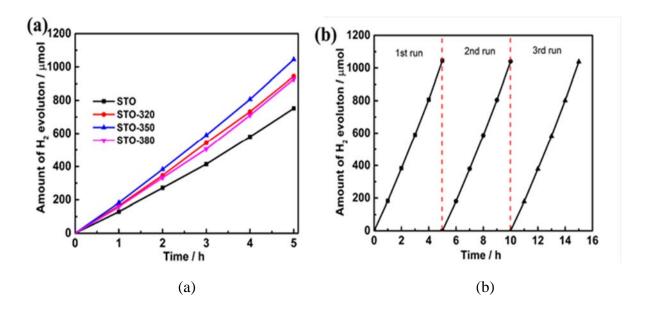


Fig. S3 Photocatalytic hydrogen production performance and stability

(a) Time-dependent hydrogen production profile over STO, STO-320, STO-350, and STO-380; (b) recycling test of photocatalytic hydrogen production with STO-350

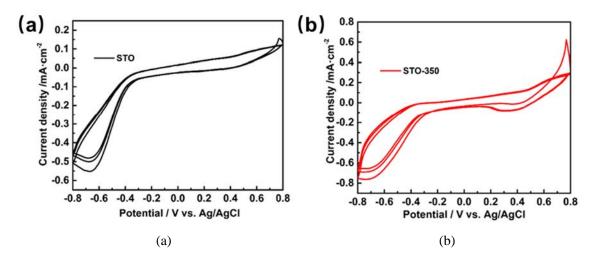


Fig. S4 CV curves in 0.1 mol/L aqueous NaSO<sub>4</sub>

(a) STO; (b) STO-350