Supplementary Materials: Aluminum Cation Doping in Ruddlesden-Popper Sr_2TiO_4 Enables High-Performance Photocatalytic Hydrogen Evolution

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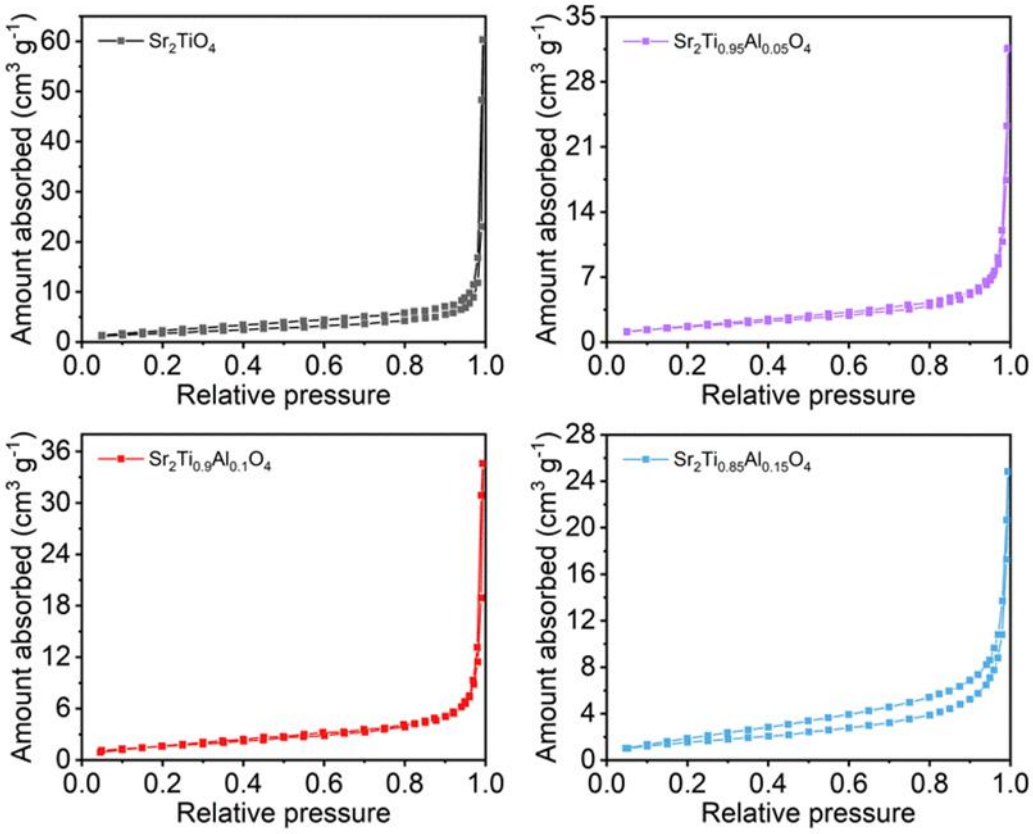

Figure S1. N_2 adsorption and desorption curves of $Sr_2Ti_{1-x}Al_xO_4$ (x = 0, 0.05, 0.1 and 0.15).

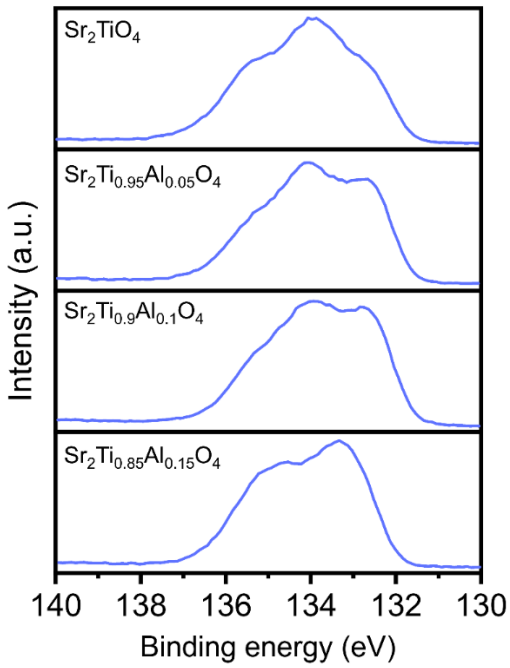

Figure S2. Sr 3d XPS spectra of $Sr_2Ti_{1-x}Al_xO_4$ (x = 0, 0.05, 0.1 and 0.15).

Table S1. BET specific surface areas and band gap energies of various $Sr_2Ti_{1-x}Al_xO_4$ samples (x = 0, 0.05, 0.1 and 0.15).

Photocatalyst	BET specific surface area (m^2 g^{-1})	Band gap energy (eV)
Sr_2TiO_4	6.729	3.32
$Sr_2Ti_{0.95}Al_{0.05}O_4$	6.093	3.20
$Sr_2Ti_{0.9}Al_{0.1}O_4$	5.933	3.06
$Sr_2Ti_{0.85}Al_{0.15}O_4$	5.797	3.16