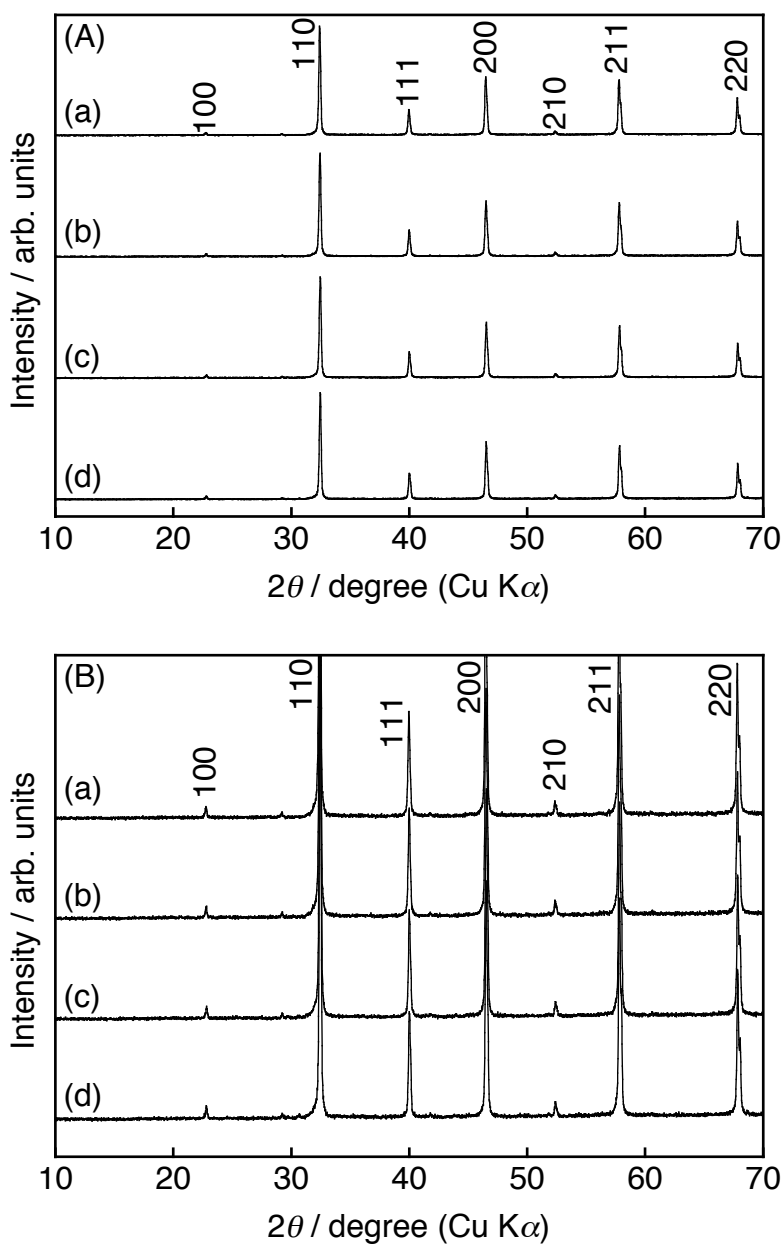


## Supporting Information

### Long wavelength visible light-responsive SrTiO<sub>3</sub> photocatalysts doped with valence-controlled Ru for sacrificial H<sub>2</sub> and O<sub>2</sub> evolution

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**Figure S1** (A) Full and (B) enlarged XRD patterns of SrTiO<sub>3</sub> doped with (a) Ru(0.3%), (b) Ru(0.3%),Sb(0.45%), (c)Ru(0.3%),Nb(0.6%), and (d)Ru(0.3%),Ta(0.6%) prepared

at 1273 K for 10 h by a solid-state reaction with 1.5 at% excess Sr.  $K\alpha_2$  was not eliminated. XRD peaks assigned to only  $SrTiO_3$  were observed even in the enlarged XRD in Figure S1B, indicating the absence of any impurity phases.