

Supporting Information

Correlation between the Band Positions of $(\text{SrTiO}_3)_{1-x} \cdot (\text{LaTiO}_2\text{N})_x$ Solid Solutions and Photocatalytic Properties under Visible Light Irradiation

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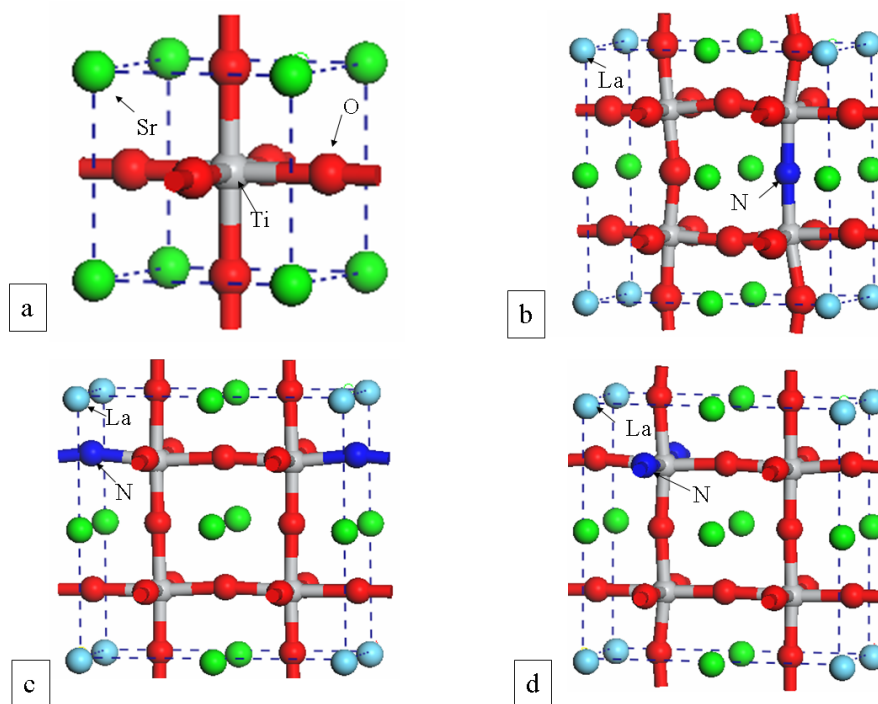


Figure 1S. Structure models for calculations. a, SrTiO_3 ; b-d, $(\text{SrTiO}_3)_{0.75} \cdot (\text{LaTiO}_2\text{N})_{0.25}$.

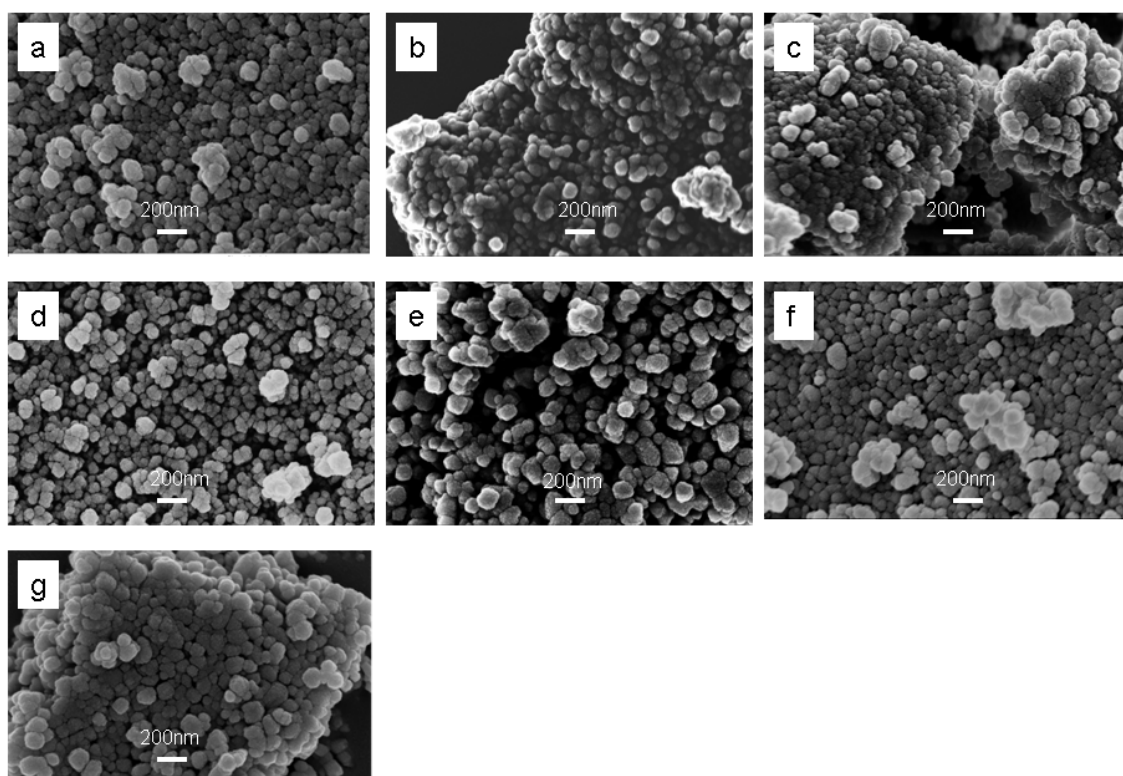


Figure 2S. SEM morphologies of (a) N-doped SrTiO_3 , and $(\text{SrTiO}_3)_{1-x} \cdot (\text{LaTiO}_2\text{N})_x$ (b, $x=0.05$; c, $x=0.10$; d, $x=0.15$; e, $x=0.20$; f, $x=0.25$; g, $x=0.30$)

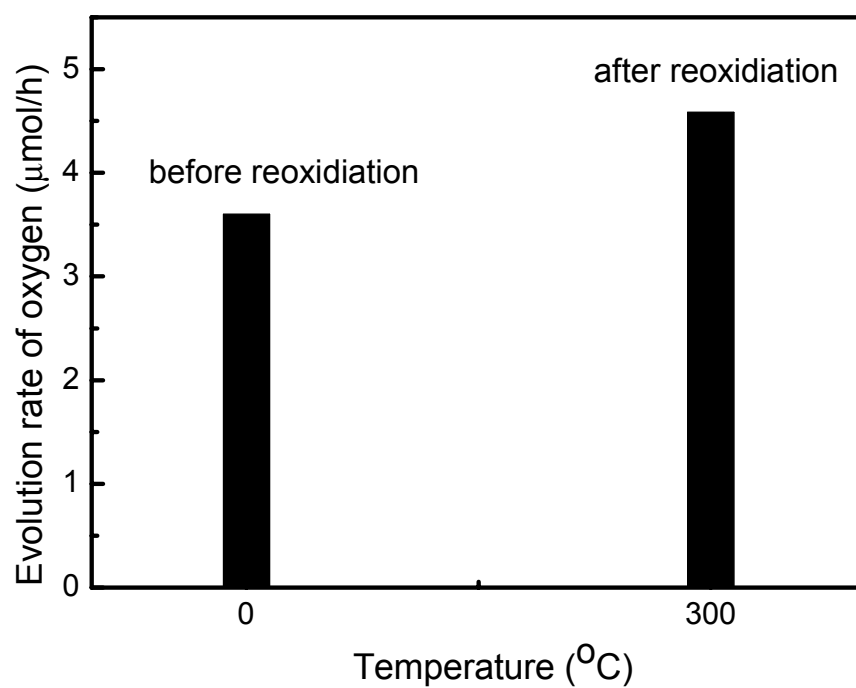


Figure 3S. A typical plot of the evolution rate of oxygen vs. the reoxidation temperature in the sample of $x=0.15$

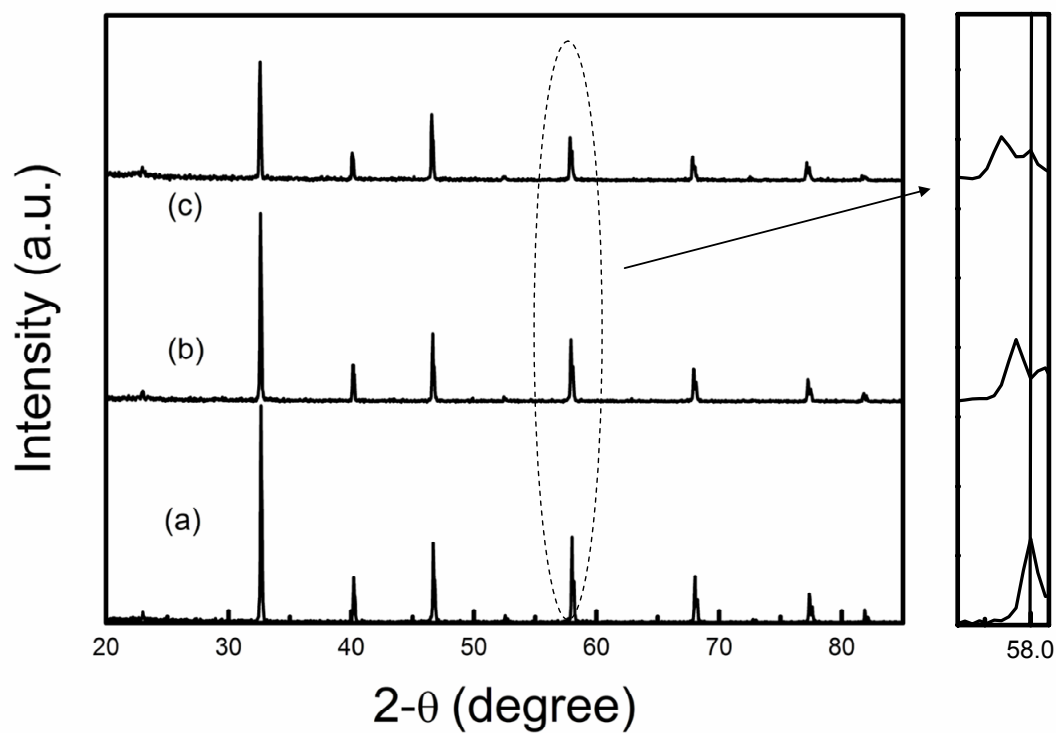


Figure 4S. X-Ray diffraction patterns of the ceramic electrodes, (a) N-doped SrTiO_3 , (b) $x=0.05$, (c) $x=0.10$

Table 1S. BET surface area of the $(\text{SrTiO}_3)_{1-x} \cdot (\text{LaTiO}_2\text{N})_x$ solid solution

Sample	x=0	x=0.05	x=0.1	x=0.15	x=0.20	x=0.25	x=0.30
BET(m ² /g)	7.997	8.715	8.462	9.548	9.8648	10.660	8.679