

SUPPORTING INFORMATION

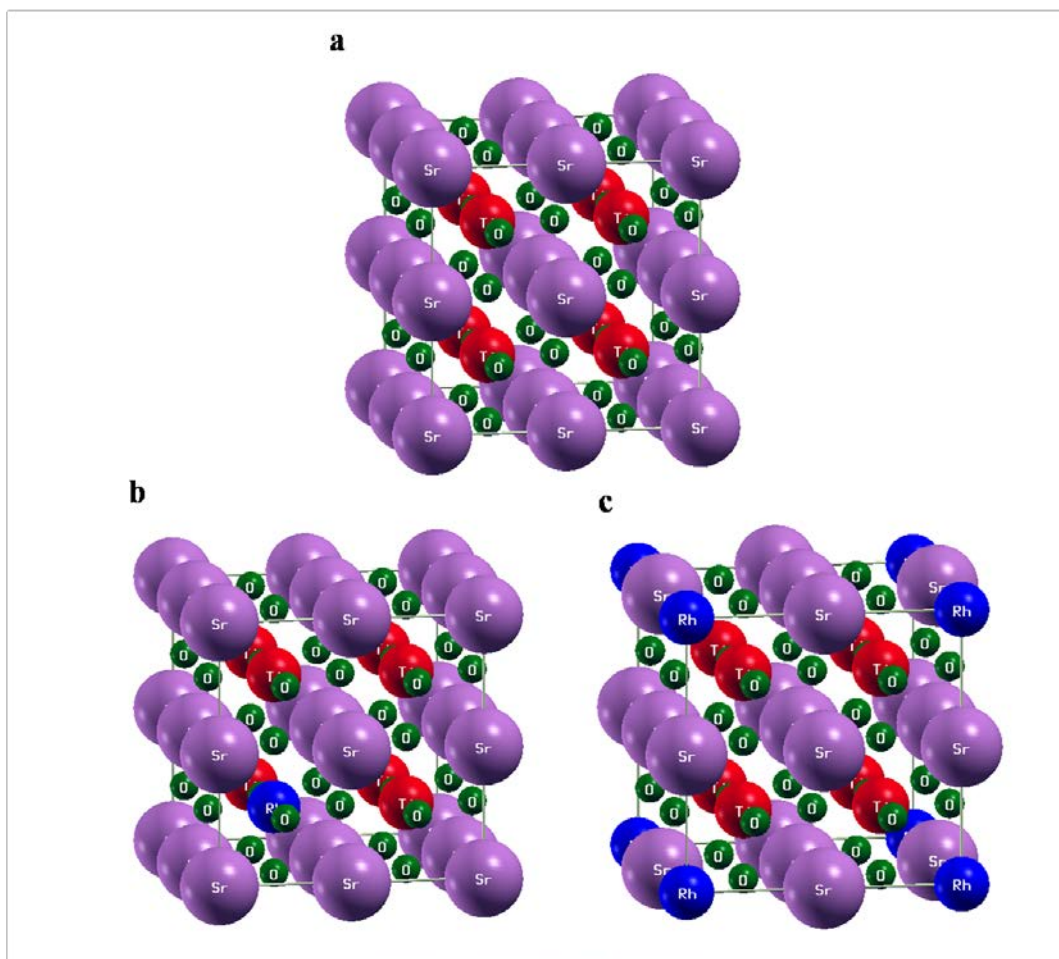
**Band Engineering of SrTiO<sub>3</sub>: Effect of Synthetic Technique  
and Site Occupancy of Doped Rhodium**

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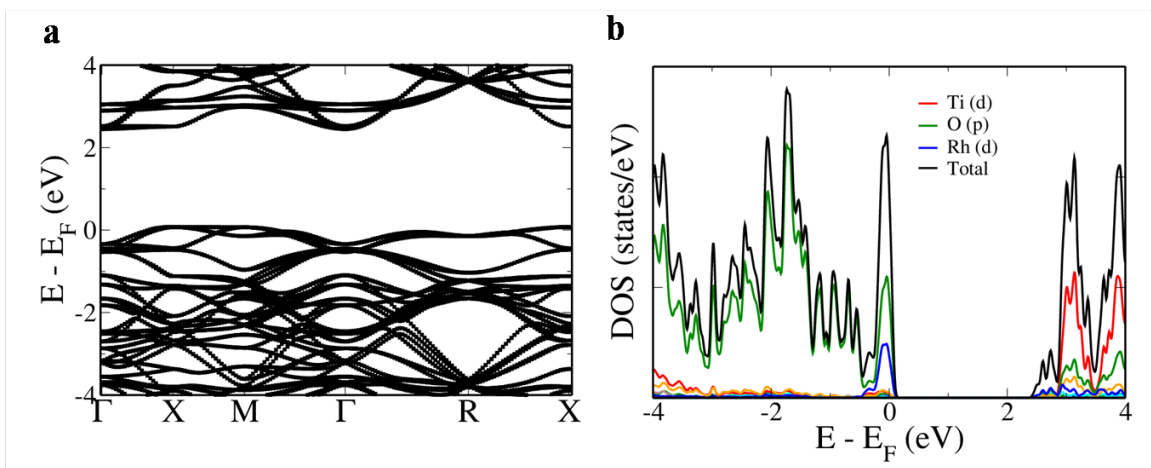
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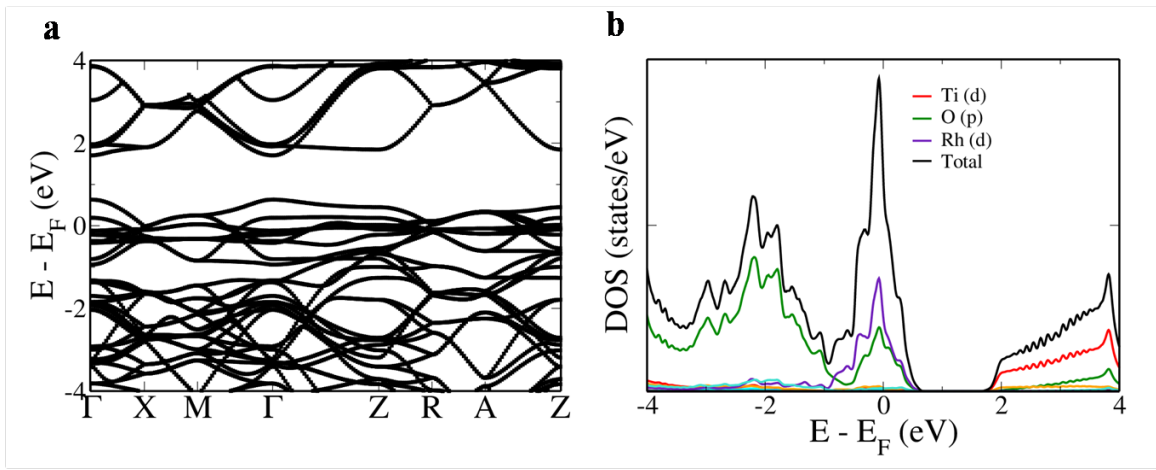
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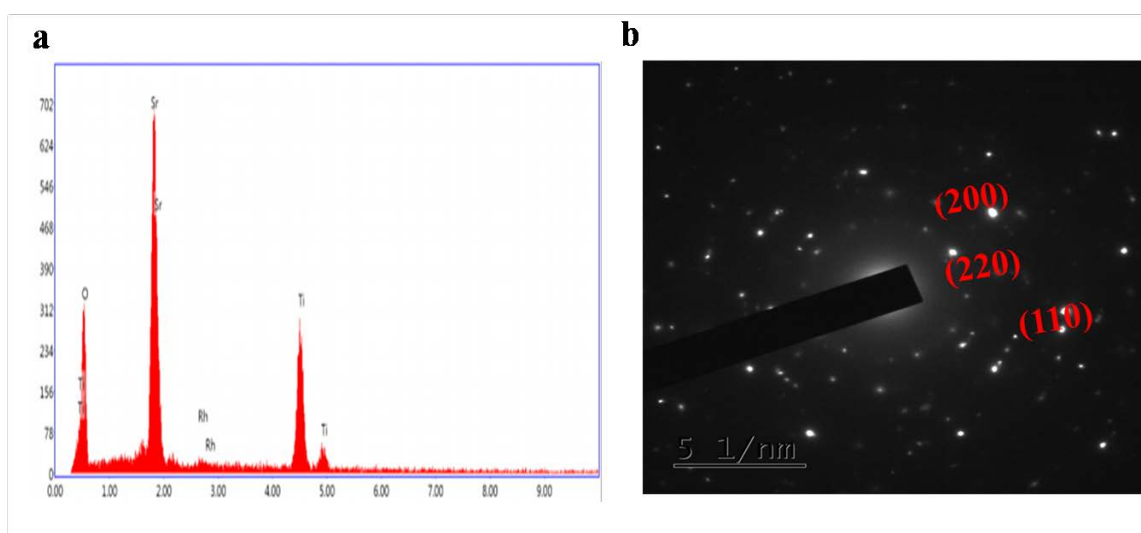
**Figure S1.** Crystal structure of 2×2×2 supercells of a) SrTiO<sub>3</sub>, b) Rh doped SrTiO<sub>3</sub> where Rh occupies Ti site and c) Rh doped SrTiO<sub>3</sub> where Rh occupies Sr site. Color code - lavender: Sr; red: Ti; green: O; blue: Rh.



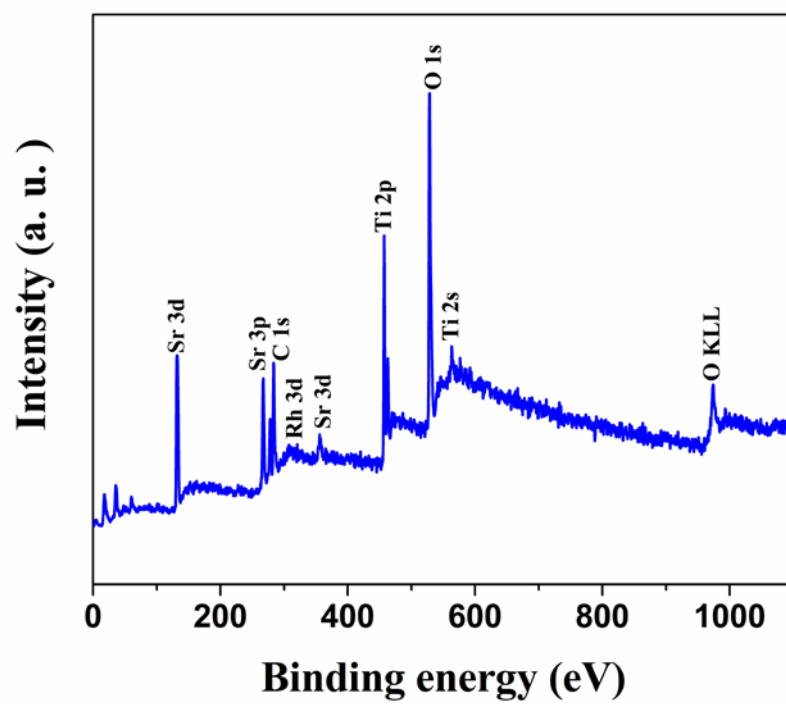
**Figure S2.** a) Electronic structure and b) pdos of Rh doped SrTiO<sub>3</sub> where two Rh atoms occupy Ti sites in 2×2×2 supercell.



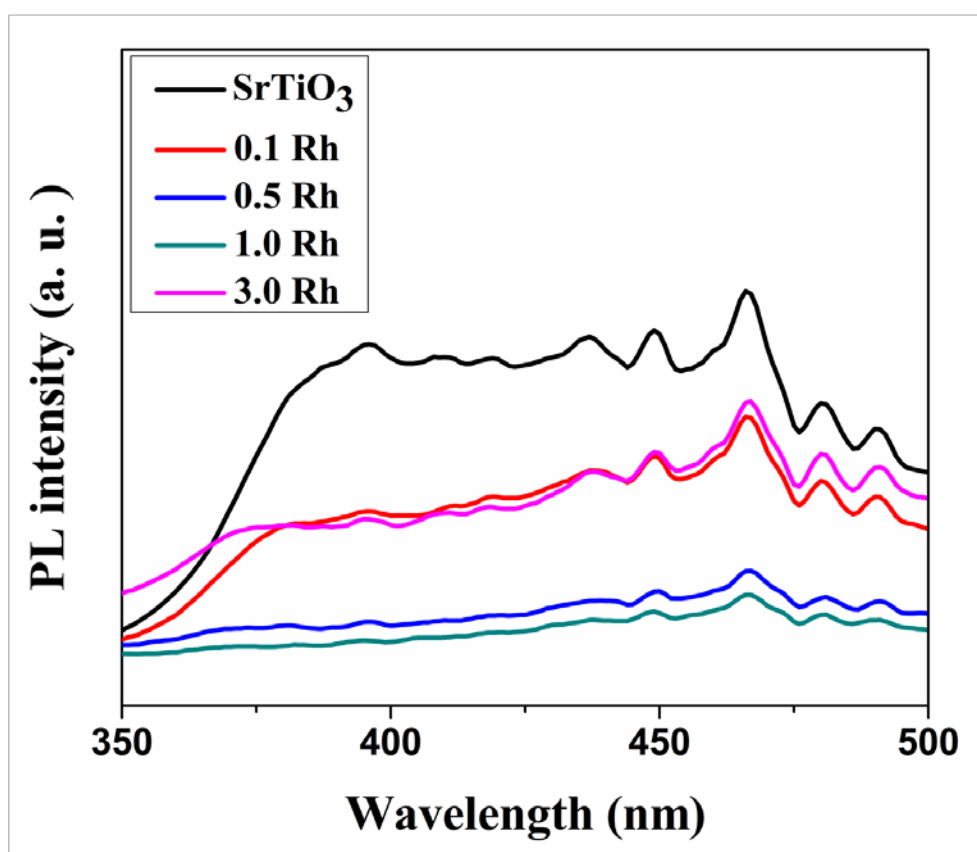
**Figure S3.** a) Electronic structure and b) pdos of Rh doped SrTiO<sub>3</sub> where two Rh atoms occupy Sr sites in 2x2x1 supercell.



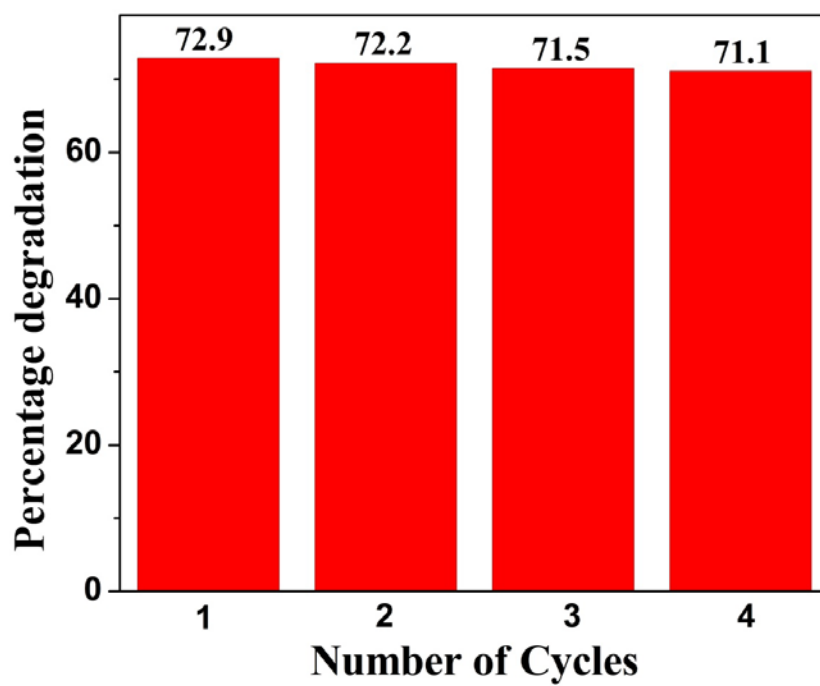
**Figure S4.** a) EDX plot and b) SAED pattern of 1.0 Rh sample.



**Figure S5.** Full range XPS survey plot of 1.0 Rh sample.

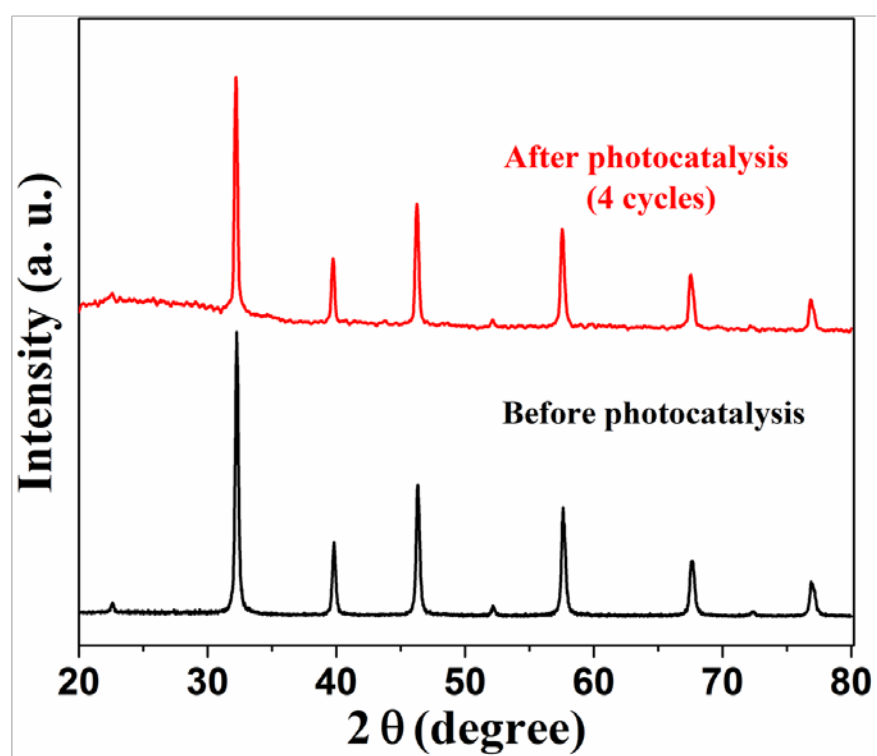


**Figure S6.** PL spectra of SrTiO<sub>3</sub> and Rh doped SrTiO<sub>3</sub> samples.



**Figure S7.** Reusability of 1.0 Rh sample for the degradation of MB dye under visible light.





**Figure S8.** XRD patterns of unused (before photocatalysis) and used (after four cycles of degradation of MB dye under visible light) 1.0 Rh sample.