Supporting Information

Porous Graphene Wrapped $SrTiO_3$ Nanocomposite: Sr-C Bond as an Effective Coadjutant for High Performance Photocatalytic Degradation of Methylene Blue

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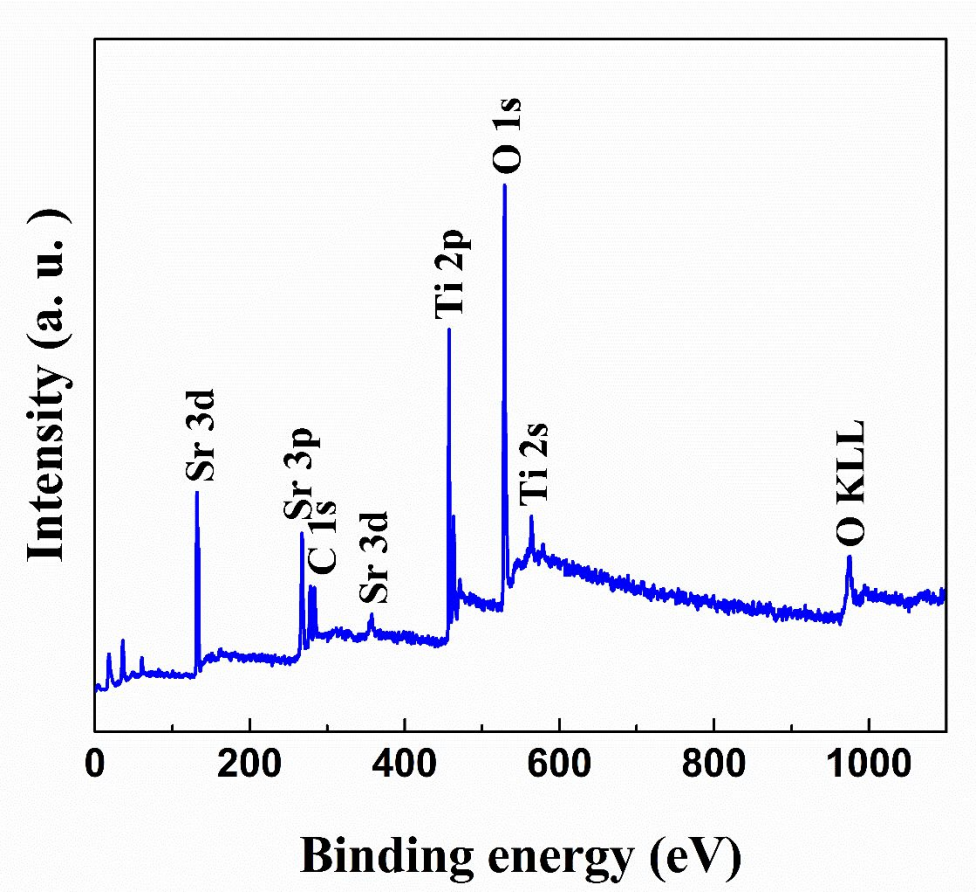

Figure S1. XPS survey spectrum of 7.5 PGST.

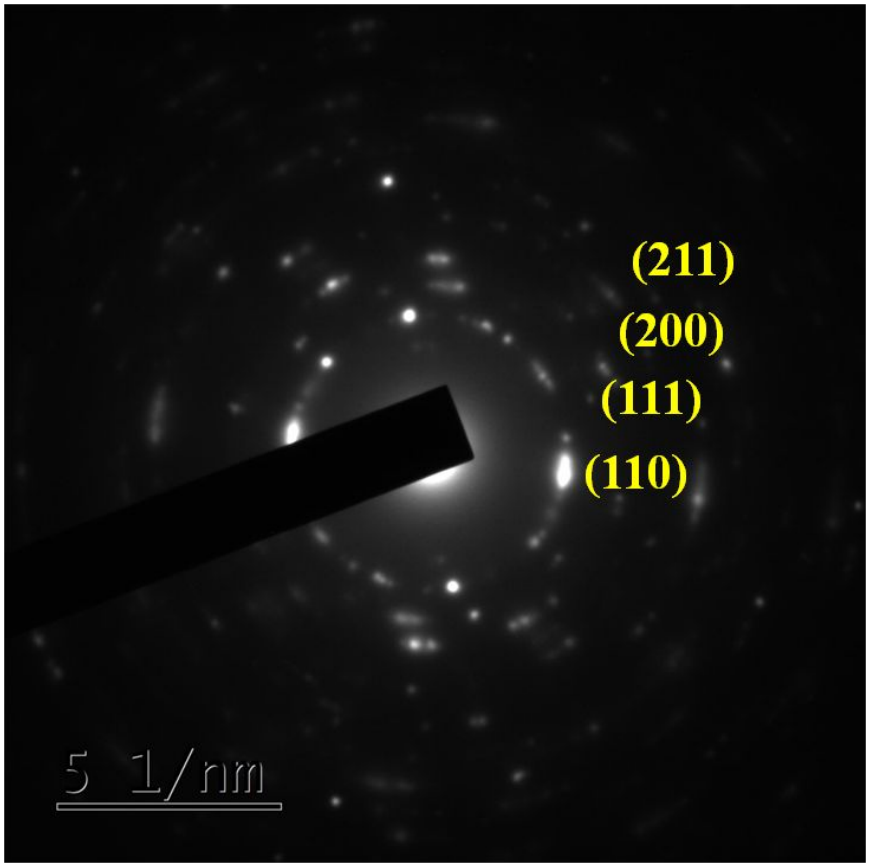

Figure S2. SAED pattern of 7.5 PGST.

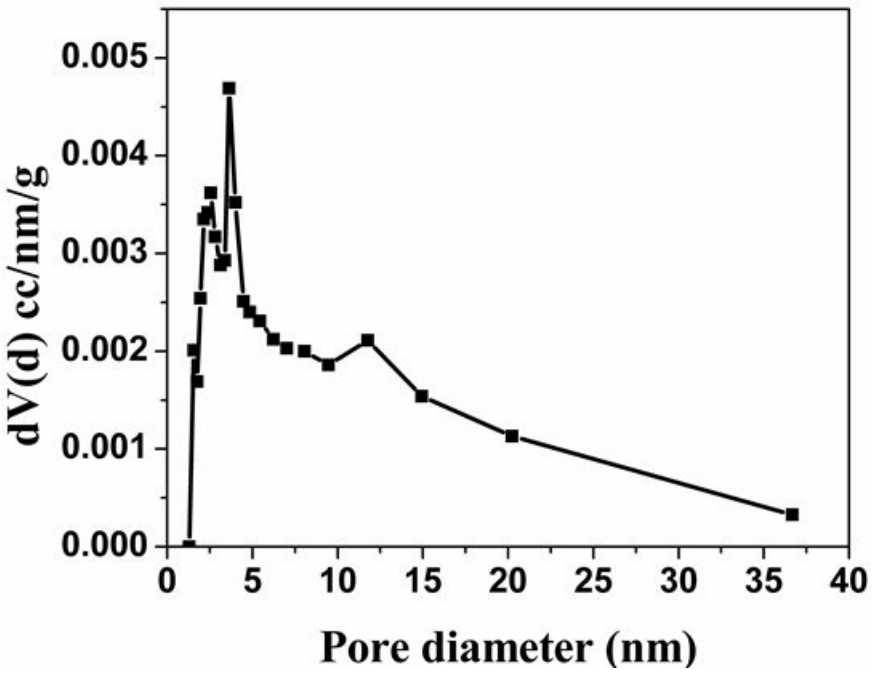

Figure S3. Pore size distribution of $SrTiO_3$.

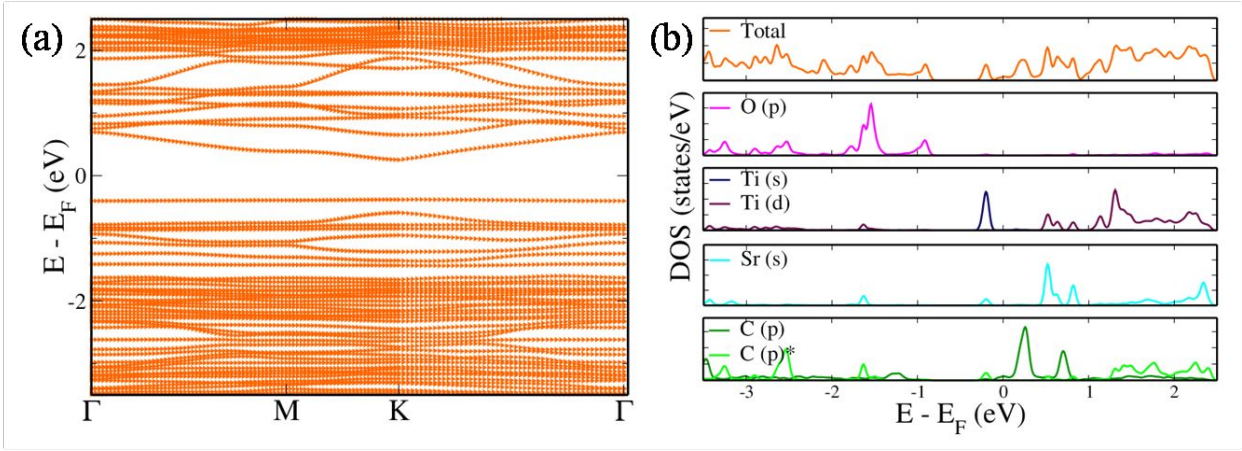

Figure S4. (a) Electronic structure and (b) pdos of D-II. Energy is shifted with respect to the Fermi level which is set at zero.

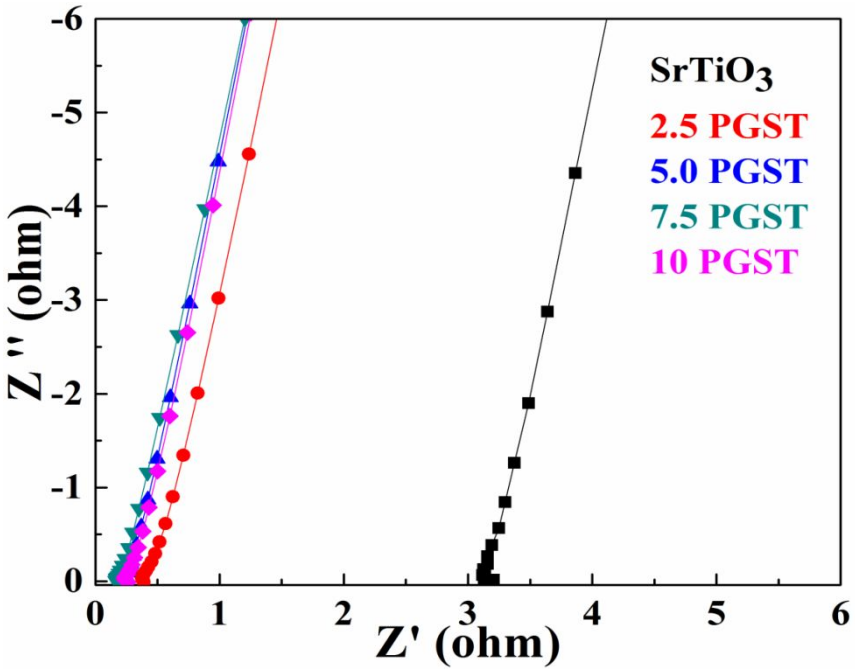

Figure S5. Nyquist plot of $SrTiO_3$ and PGST.

Table S1. Resistance and conductance values of the synthesized samples.

Electrode material	Resistance (Ω)	Conductance (S)
$SrTiO_3$	3.18	0.3144
2.5 PGST	0.44	2.2727
5.0 PGST	0.27	3.7033
7.5 PGST	0.19	5.2631
10 PGST	0.28	3.5714

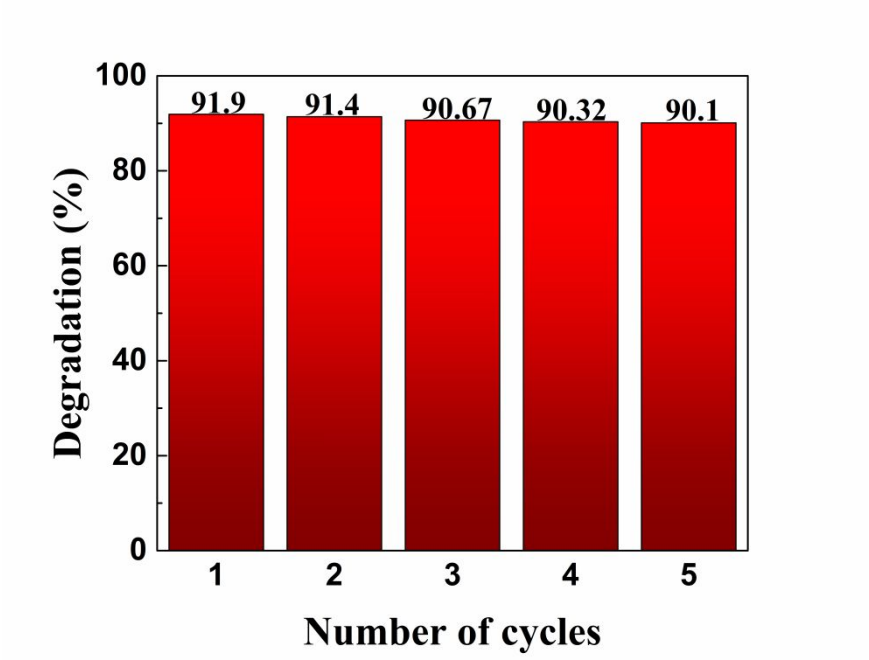

Figure S6. Reusability test of 7.5 PGST for the photocatalytic degradation of MB.

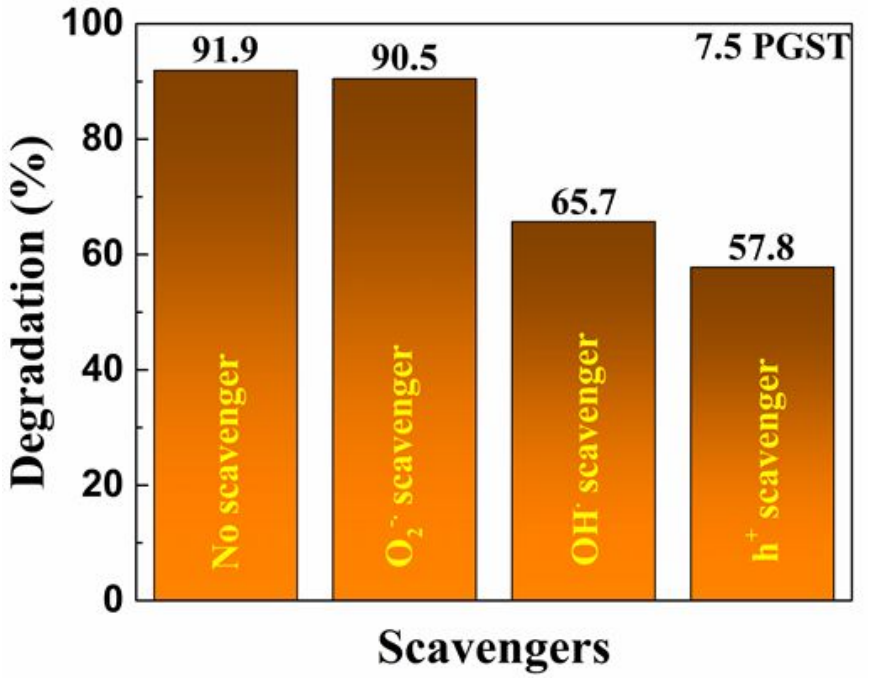

Figure S7. Effect of scavengers on the photocatalytic degradation of MB.