Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supporting Information

Interstitial N-doped $SrSnO_3$ perovskite: Structural design, modification and photocatalytic degradation for dyes

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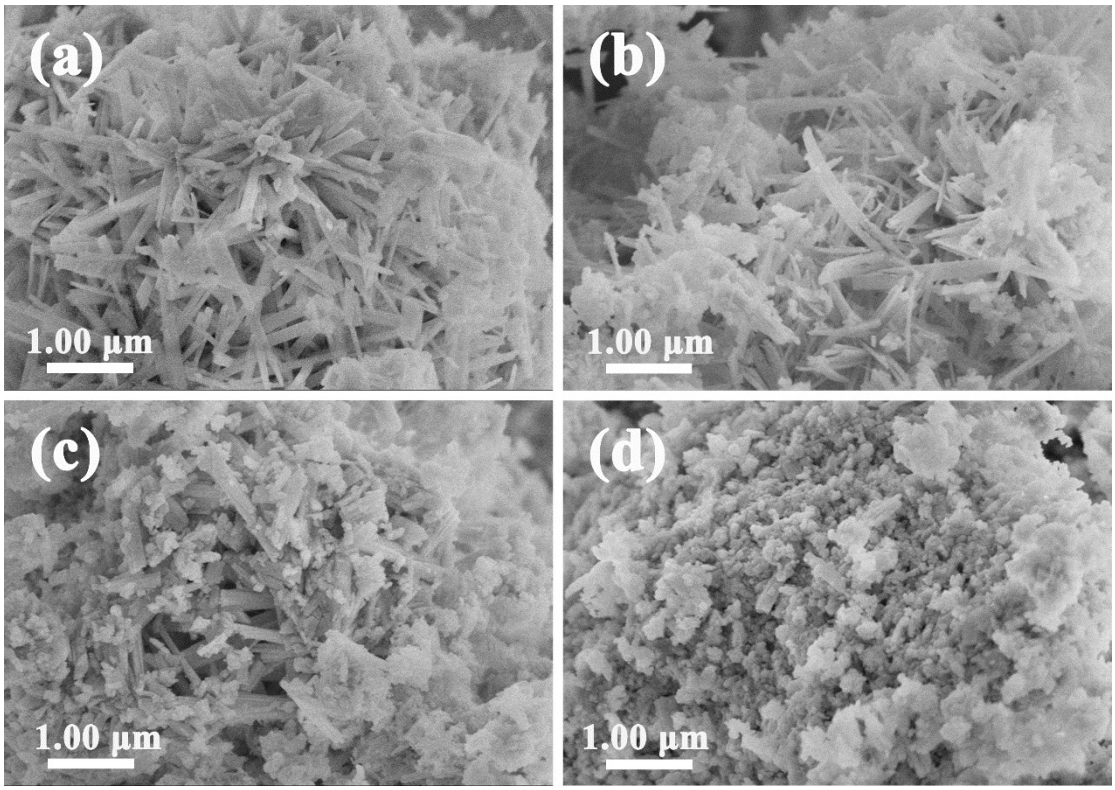

Fig. S1. SEM images of (a) SSOH-N_0, (b) SSOH-N_1, (c) SSOH-N_2 and (d) SSOH-N_3.

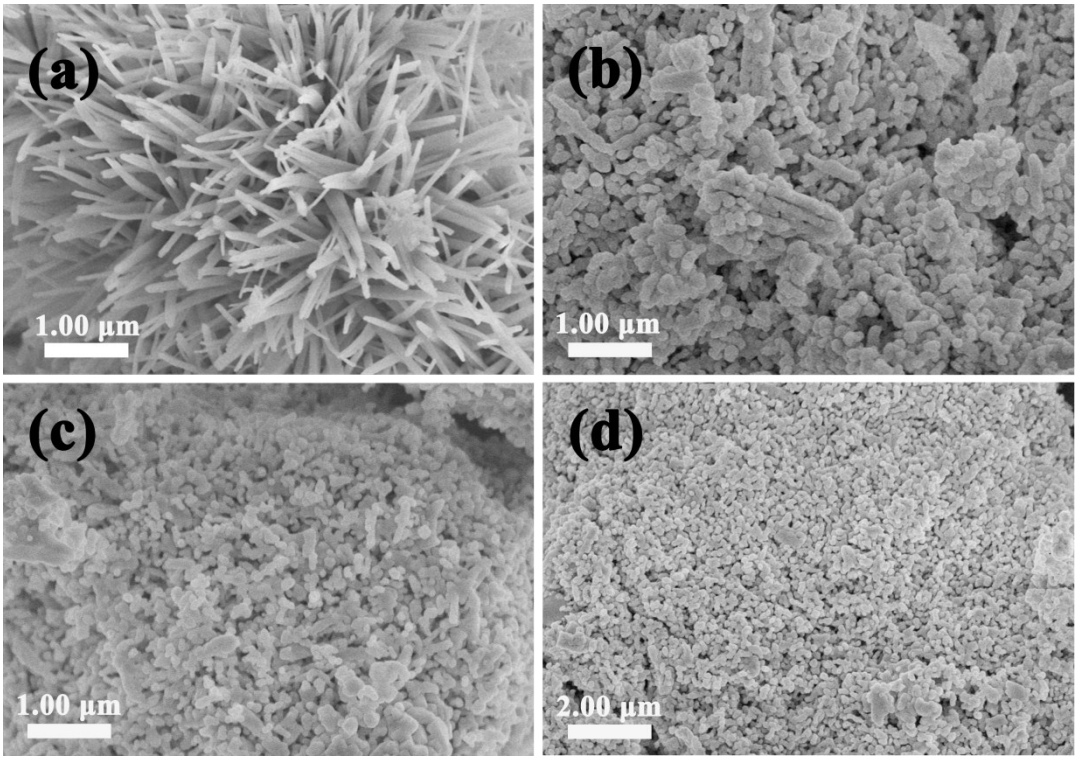

Fig. S2. SEM images of (a) SSO-700-N_0, (b) SSO-700-N_1, (c) SSO-700-N_2 and (d) SSO-700-N_3.

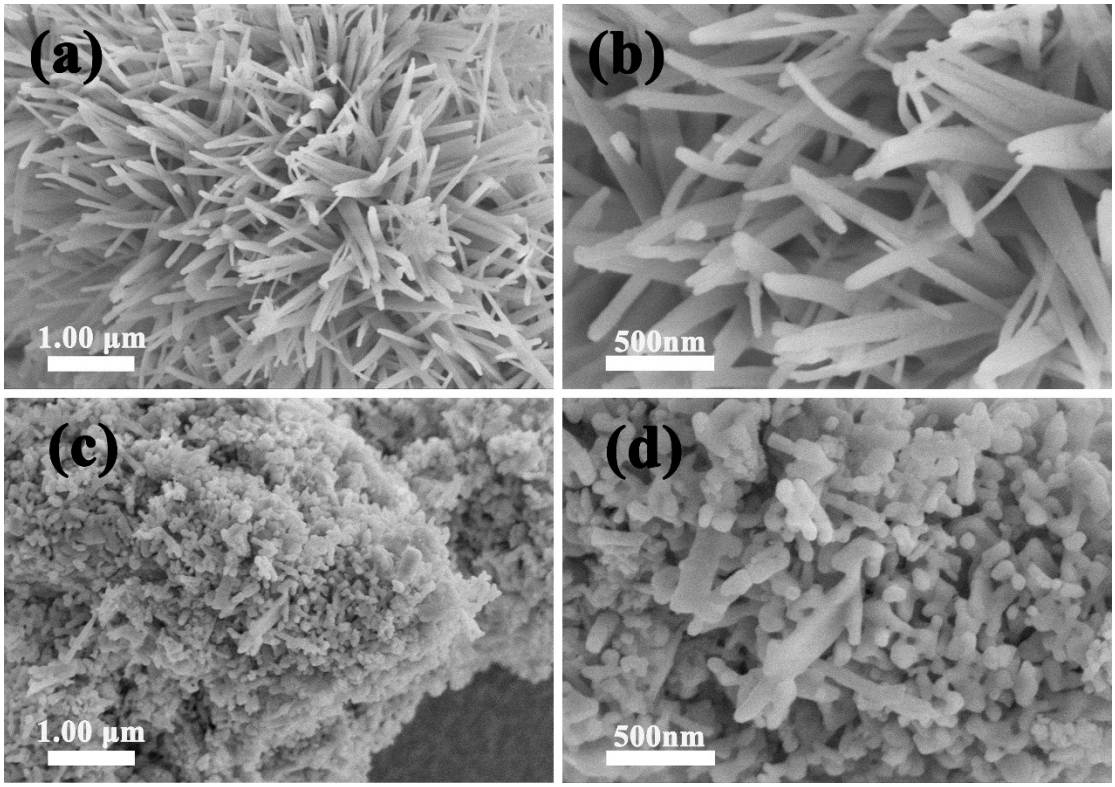

Fig. S3. SEM patterns of (a-b) SSO-700-N_0 and (c-d) SSO-700-N_2-Air.

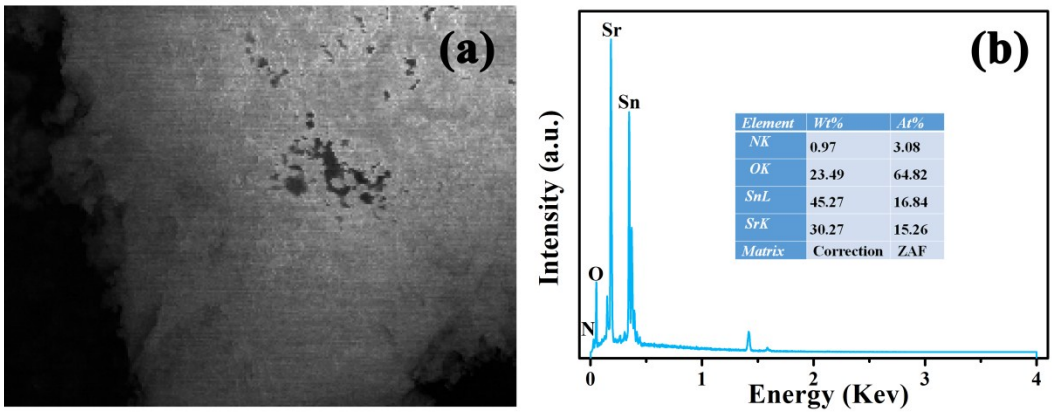

Fig. 4. (a) The FESEM image corresponds to elemental mapping and (b) EDS pattern of SSO-700-N_1.

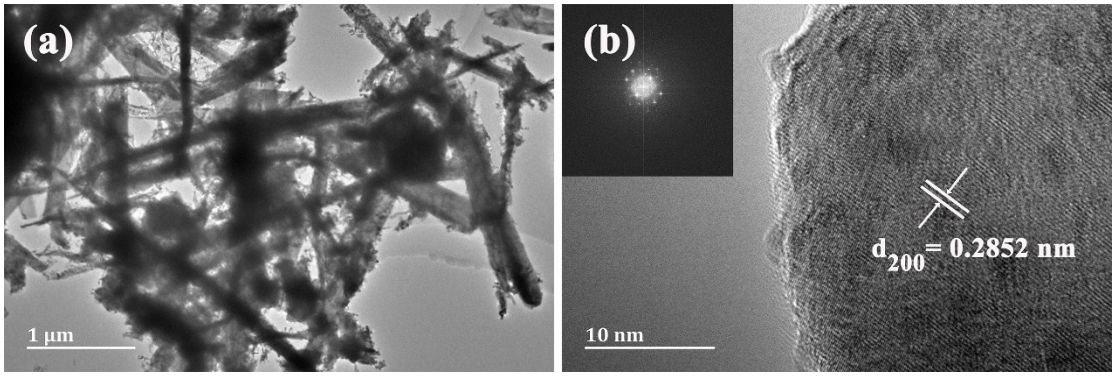

Fig. S5. (a) TEM and (b) HRTEM images of SSO-700-N_0.

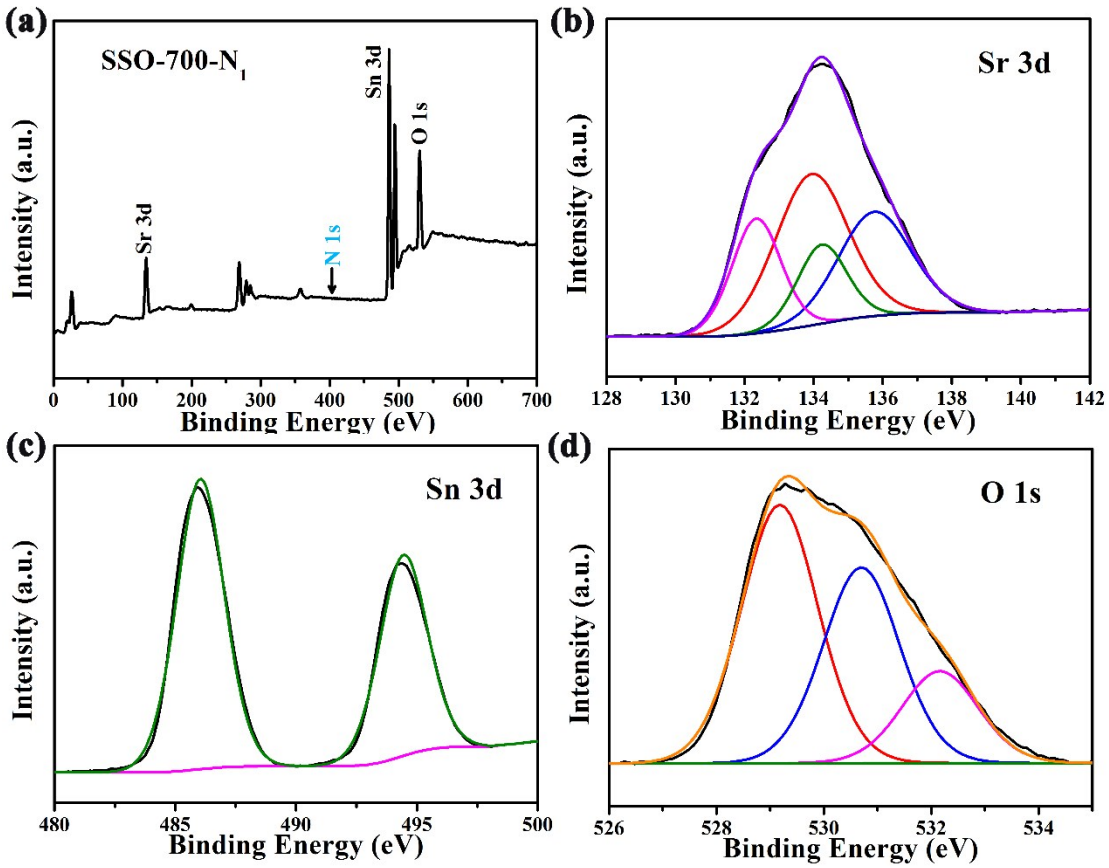

Fig. S6. XPS survey spectra of SSO-700-N_1.

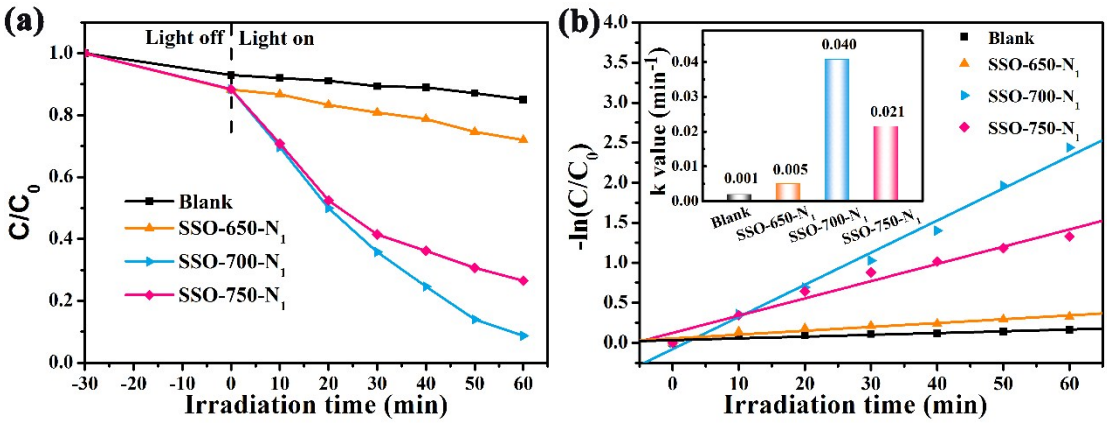

Fig. S7. (a) The photocatalytic degradation of SSO-N_1 products under different thermal treatment conditions on the MB aqueous solution and (b) the corresponding reaction kinetic curves.

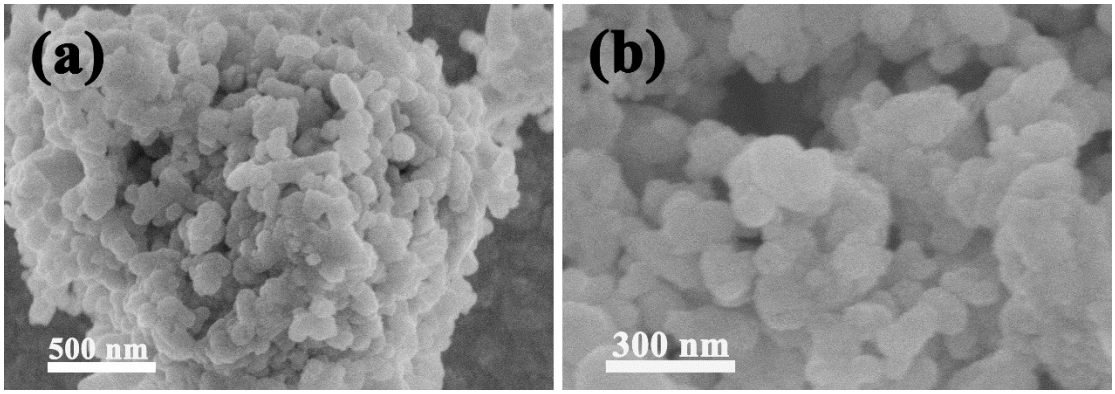

Fig. S8. SEM patterns of SSO-700-N_1 after 5 runs.

Table S1. EDS data of SSO-700-N_0, SSO-700-N_1, SSO-700-N_2 and SSO-700-N_3.

Sample	SSO-700-N_0		SSO-700-N_1		SSO-700-N_2		SSO-700-N_3	
	Wt%	At%	Wt%	At%	Wt%	At%	Wt%	At%
NK	0.00	0.00	0.97	3.08	01.70	05.83	2.90	9.42
OK	23.41	66.45	23.49	64.82	19.72	59.20	19.96	56.75
SnL	45.30	17.33	45.27	16.84	46.04	18.63	45.77	17.54
SrK	31.29	16.22	30.27	15.26	32.54	17.84	31.37	16.29

Table S2. Atomic concentrations of Sn, Sr, N, O, and N in SSO-700-N_1 as determined from the XPS spectra.

Sample	Atomic %			
	Sn 3d	Sr 3d	O 1s	N 1s
SSO-700-N_1	18.32	17.93	60.56	3.19