

## Electronic Supplementary Material (ESI)

### Microwave-assisted Synthesis of La-Cr co-doped SrTiO<sub>3</sub> and Their Photocatalytic Hydrogen Evolution under Visible Light

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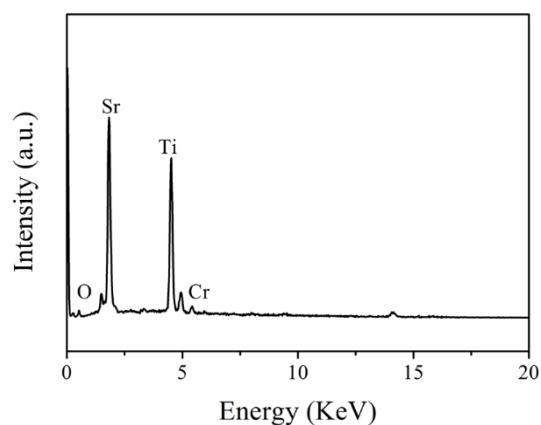


Fig S1 The EDS image of Cr-5.

Table S1. The table of the element content.

Element	Weight percent	Atom Percent
O K	7.91	26.21
Ti K	34.73	38.43
Cr K	1.63	1.67
Sr L	55.72	33.70
Total weight	100.00	

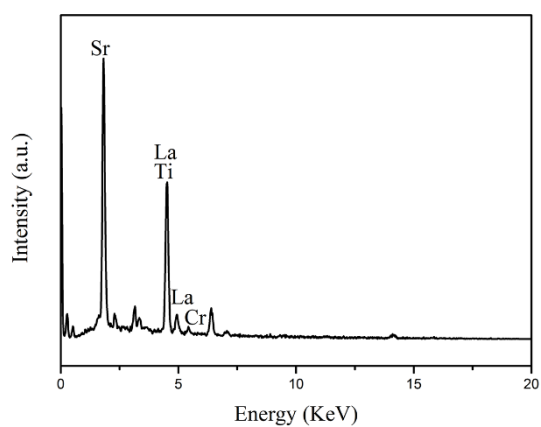


Fig S2 The EDS image of La-Cr-5.

Table S2 The table of the element content.

Element	Weight percent	Atom Percent
O K	10.64	32.87
Ti K	34.35	35.45
Cr K	1.68	1.60
La M	2.46	1.90
Sr L	50.87	28.18
Total weight	100.00	

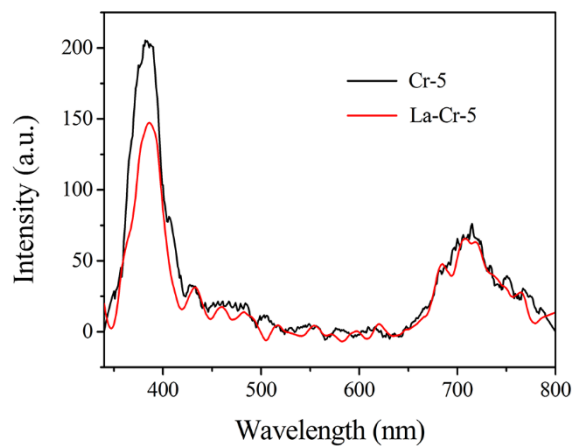


Fig. S3 The photoluminescence spectra of Cr-5 and Cr-La-5

The photoluminescence spectra of Cr-5 and Cr-La-5 have been provide in the revised manuscript, and the Figure also list below, in comparison with Cr-5, La-Cr-5, the intensity of the PL signal for La-Cr-5 is much lower, This indicates that the La-Cr-5 has a lower recombination rate of electrons and holes under visible-light irradiation, which means the photocatalytic performance of La-Cr-5 is better than that of Cr-5.