

Vanadium doping of strontium germanate and their visible photocatalytic properties

L. Z. Pei^{a,*}, S. Wang^a, N. Lin^a, H. D. Liu^a and Y. H. Guo^b

^a Key Lab of Materials Science and Processing of Anhui Province, School of Materials Science and Engineering, Anhui University of Technology, Ma'anshan, Anhui 243002, P. R. China

^b Department of Materials Science, Fudan University, Shanghai 200433, P. R. China

Fig. S1 shows the UV-vis spectra of the MB solution after different irradiation times treated by strontium germanate nanowires in 20 ml MB solution. Strontium germanate nanowires, 20 mg;

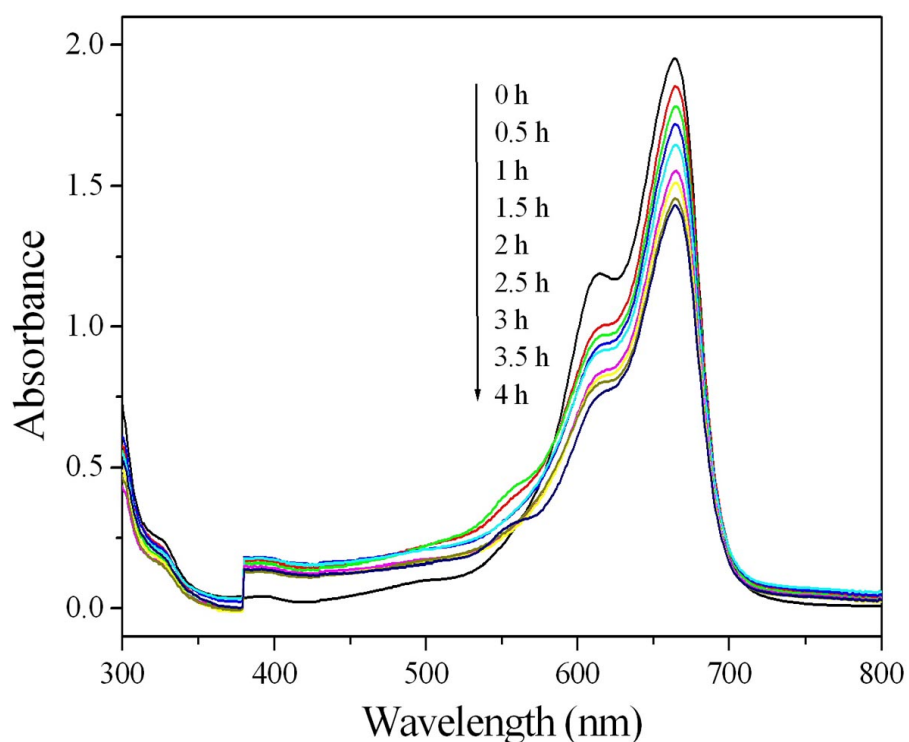


Fig. S1. UV-vis spectra of the MB solution after different irradiation times treated by strontium germanate nanowires in 20 ml MB solution. Strontium germanate nanowires, 20 mg; MB, 10 mgL⁻¹

* Corresponding author. Fax: +865552311570.
E-mail addresses: lzpei@ahut.edu.cn, lzpei1977@163.com (L. Z. Pei).

MB, 10 mgL⁻¹.

Fig. S2 shows the UV-vis spectra of the MB solution after different irradiation times treated by vanadium doped stronium germanate with V content of 1wt.% in 20 ml MB solution.

Vanadium doped stronium germanate, 20 mg; MB, 10 mgL⁻¹.

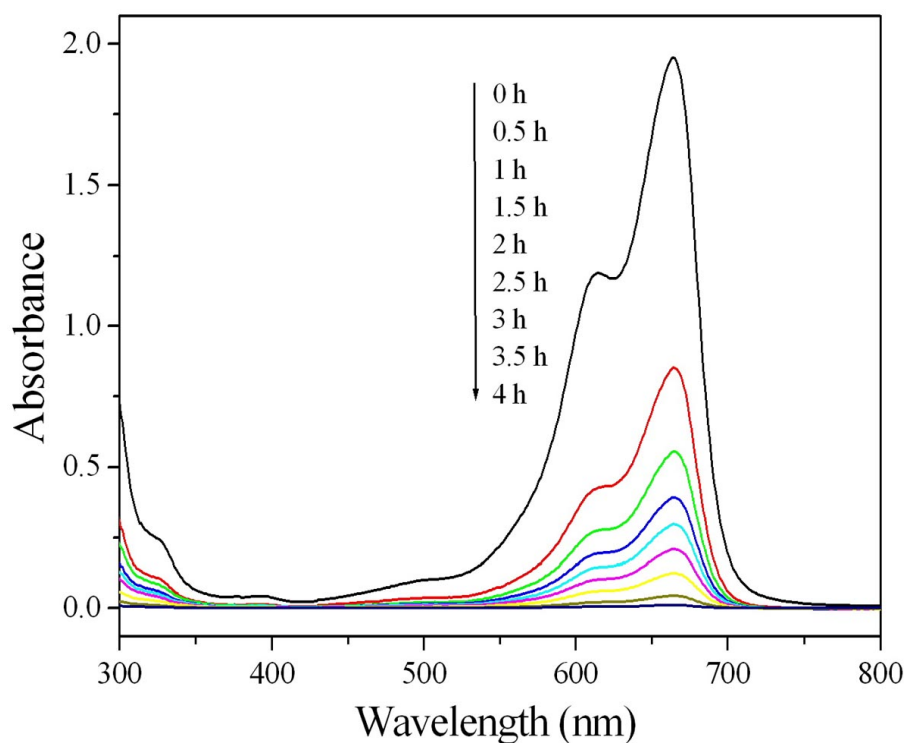


Fig. S2. UV-vis spectra of the MB solution after different irradiation times treated by vanadium doped stronium germanate with V content of 1wt.% in 20 ml MB solution. Vanadium doped stronium germanate, 20 mg; MB, 10 mgL⁻¹.

Fig. S3 shows the UV-vis spectra of the MB solution after different irradiation times treated by vanadium doped stronium germanate with V content of 3wt.% in 20 ml MB solution.

Vanadium doped stronium germanate, 20 mg; MB, 10 mgL⁻¹.

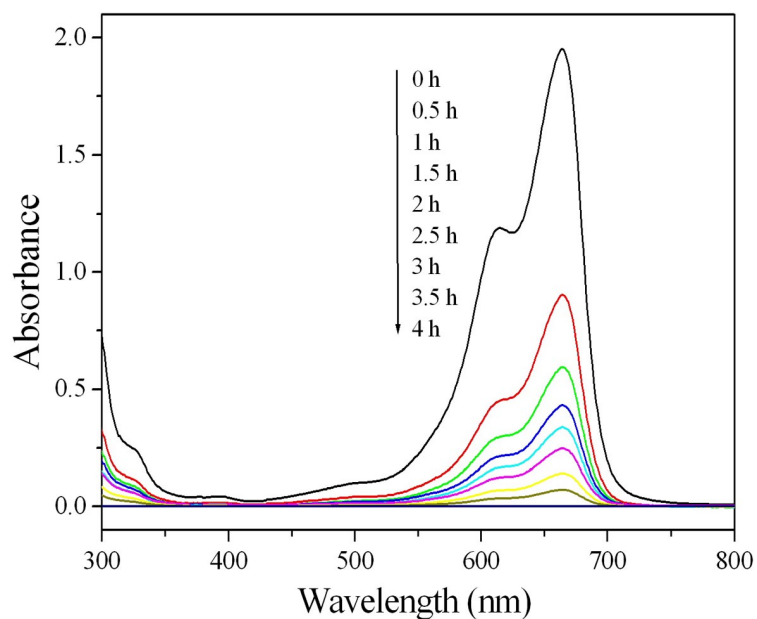


Fig. S3. UV-vis spectra of the MB solution after different irradiation times treated by vanadium doped strontium germanate with V content of 3wt.% in 20 ml MB solution. Vanadium doped strontium germanate, 20 mg; MB, 10 mgL⁻¹.

Fig. S4 shows the UV-vis spectra of the MB solution after different irradiation times treated

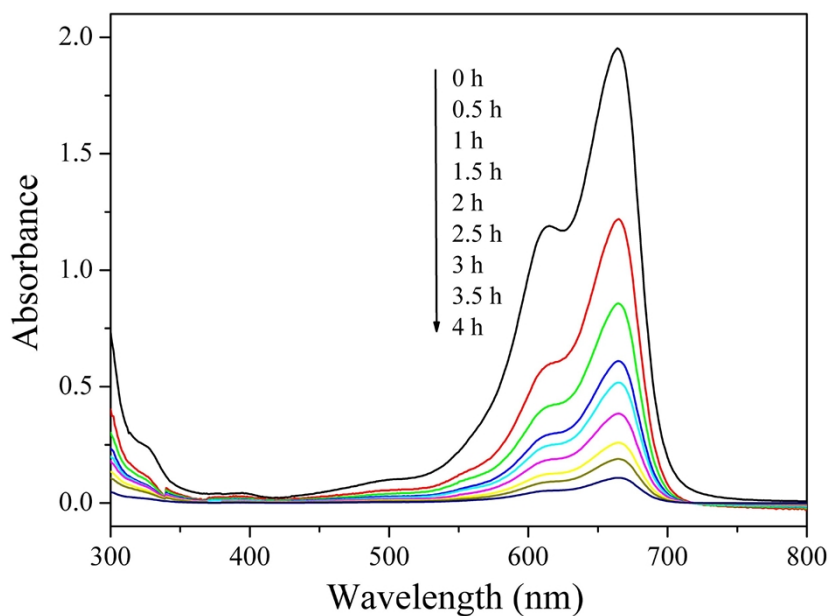


Fig. S4. UV-vis spectra of the MB solution after different irradiation times treated by vanadium doped strontium germanate with V content of 5wt.% in 20 ml MB solution. Vanadium doped strontium germanate, 20 mg; MB, 10 mgL⁻¹.

by vanadium doped stronium germanate with V content of 5wt.% in 20 ml MB solution.

Vanadium doped stronium germanate, 20 mg; MB, 10 mgL⁻¹.

Fig. S5 shows the UV-vis spectra of the MB solution after different irradiation times treated by vanadium doped stronium germanate with V content of 10wt.% in 20 ml MB solution.

Vanadium doped stronium germanate, 20 mg; MB, 10 mgL⁻¹.

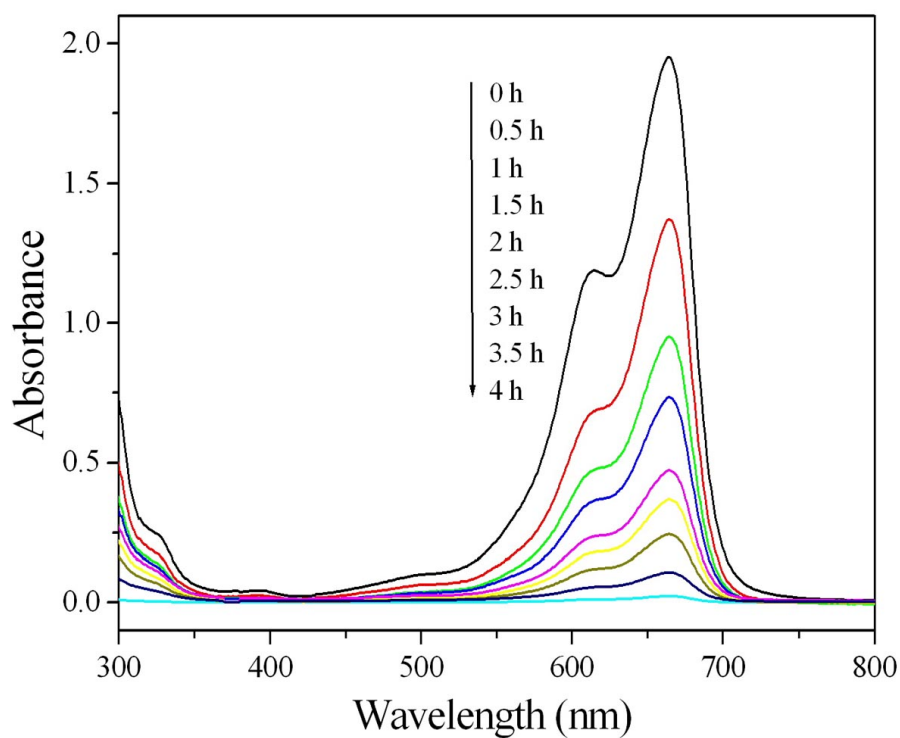


Fig. S5. UV-vis spectra of the MB solution after different irradiation times treated by vanadium doped stronium germanate with V content of 5wt.% in 20 ml MB solution. Vanadium doped stronium germanate, 20 mg; MB, 10 mgL⁻¹.

Fig. S6 shows the UV-vis spectra of the MB solution treated using 1wt.% vanadium doped stronium germanate with different contents in 10 ml MB solution. Irradiation time, 4 h; MB, 10 mgL⁻¹.

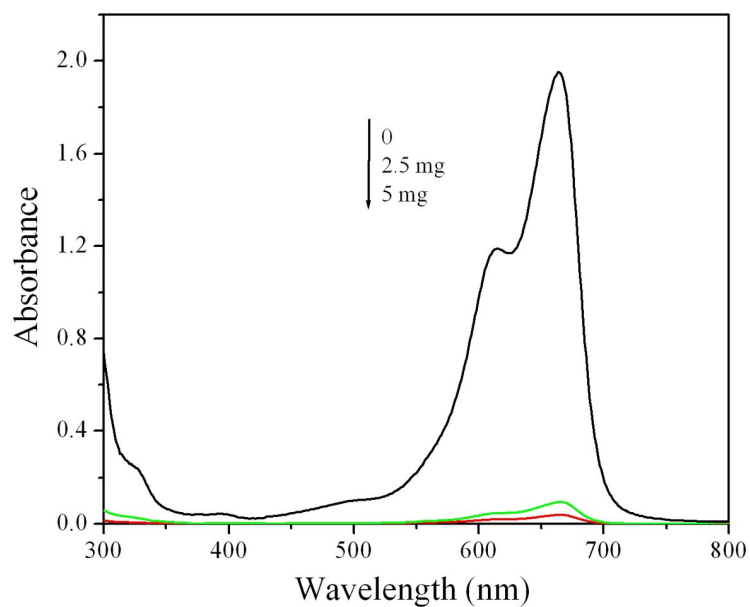


Fig. S6. UV-vis spectra of the MB solution treated using 1wt.% vanadium doped strontium germanate with different contents in 10 ml MB solution. Irradiation time, 4 h; MB, 10 mgL⁻¹.

Fig. S7 shows the UV-vis spectra of the MB solution treated using 3wt.% vanadium doped strontium germanate with different contents in 10 ml MB solution. Irradiation time, 4 h; MB, 10 mgL⁻¹.

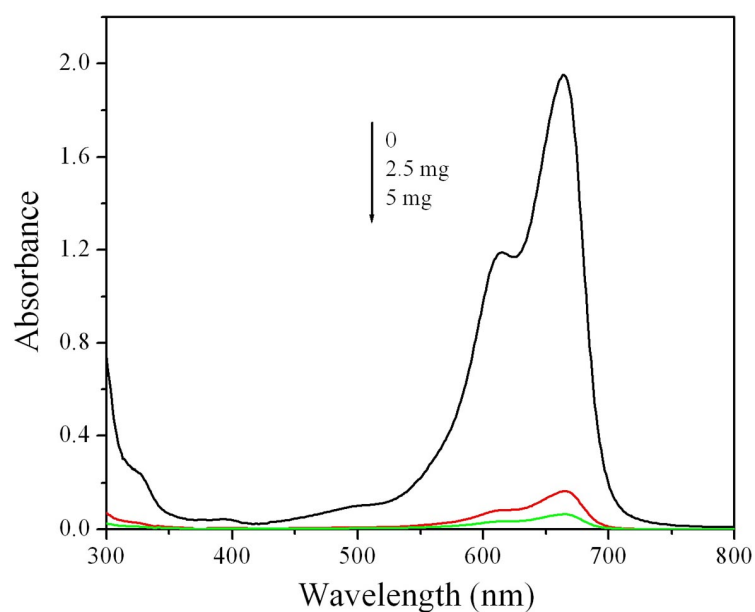


Fig. S7. UV-vis spectra of the MB solution treated using 3wt.% vanadium doped strontium germanate with different contents in 10 ml MB solution. Irradiation time, 4 h; MB, 10 mgL⁻¹.

Fig. S8 shows the UV-vis spectra of the MB solution treated using 5wt.% vanadium doped strontium germanate with different contents in 10 ml MB solution. Irradiation time, 4 h; MB, 10 mgL⁻¹.

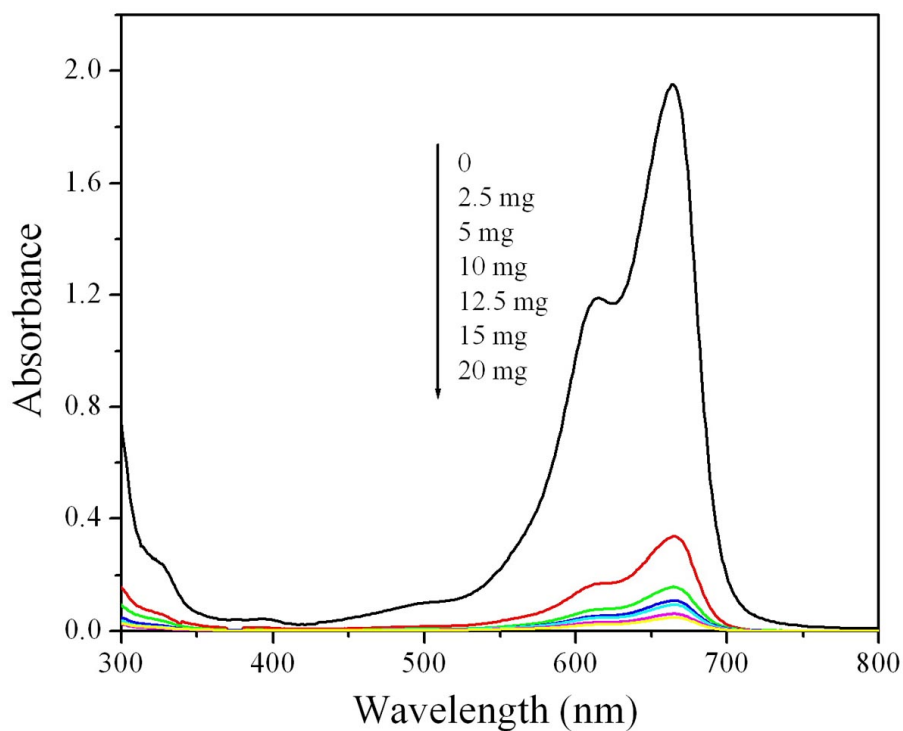


Fig. S8. UV-vis spectra of the MB solution treated using 5wt.% vanadium doped strontium germanate with different contents in 10 ml MB solution. Irradiation time, 4 h; MB, 10 mgL⁻¹.

Fig. S9 shows the UV-vis spectra of the MB solution treated using 10wt.% vanadium doped strontium germanate with different contents in 10 ml MB solution. Irradiation time, 4 h; MB, 10 mgL⁻¹.

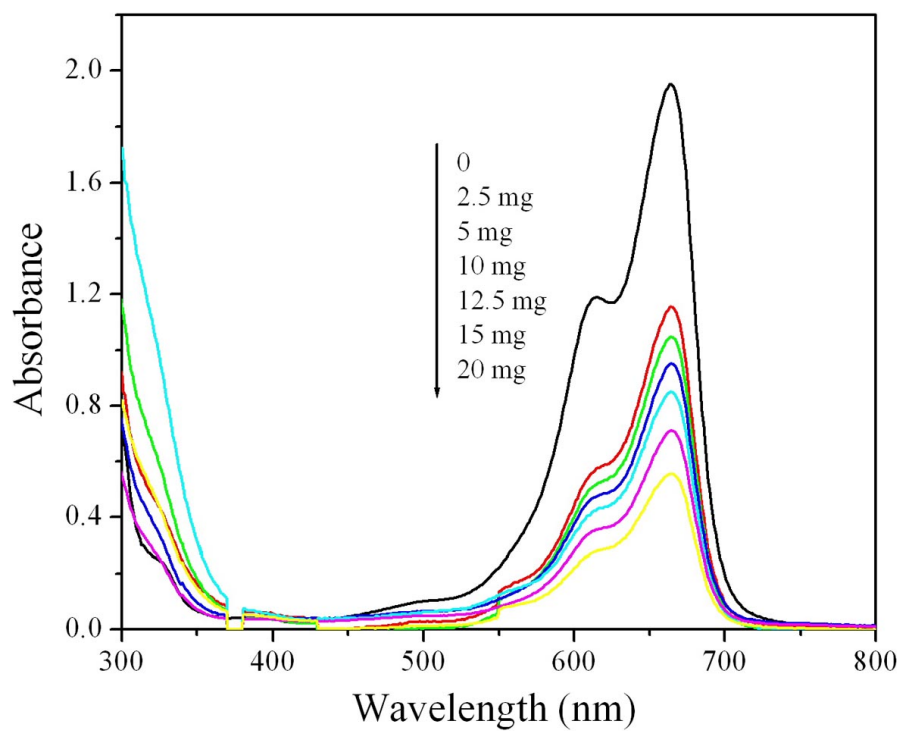


Fig. S9. UV-vis spectra of the MB solution treated using 10wt.% vanadium doped strontium germanate with different contents in 10 ml MB solution. Irradiation time, 4 h; MB, 10 mgL⁻¹.